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A NEEDS ASSESSMENT OF AIR FORCE
SYSTEMS COMMAND BUYING ACTIVITY
ACQUISITION MANAGEMENT INFORMATION
SYSTEM (AMIS) USERS

THESIS

Garry R.Y. Shafovaloff
Captain, USAF

AFIT/GCM/LSY/89S-12

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY
AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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SYSTEM (AMIS) USERS

THESIS

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

in Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Contract Management

Garry R.Y. Shafovaloff, B.S.

Captain, USAF

September 1989

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Preface

This purpose of this study was to find out, first hand, from AMIS users (from buying activities at Air Force Systems Command) how the current system could be improved to meet their computer automation and information needs. A more precise understanding of the users will help the AMIS Program Office of Air Force Systems Command, invest their resources on efforts that will provide the most utility to the field.

A special thanks goes to the AMIS Program Office; in particular Lt Col Alan Whittle, the director, and Mr Cuthbert Cornette, the deputy director. Their strong commitment to improve AMIS for the user is most significantly manifested by their insistence on involving the AMIS user in the design of on-going AMIS improvement projects.

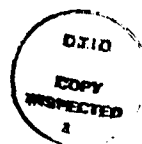
I am extremely indebted to Lt Col Curt Cook, my thesis advisor, for giving me the opportunity to support a current Air Force need. His guidance and support were invaluable.

Most of all I would like to thank God, not only for those mentioned above, but also for my wife Rachael and my patient children.

Garry R.Y. Shafovaloff

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Abstract

→ The Air Force Systems Command (AFSC) Acquisition Management Information System (AMIS) is continually being improved to better meet the needs of its users. The primary object of this research was to support the AFSC AMIS program office and the AFSC Contract Automation Working Group in determining the buying activity users' level of satisfaction and unmet needs. The survey results will provide AFSC additional information on what improvements to AMIS will provide the most utility to the users.

The ¹⁹⁸⁶ study found that that 36% of AFSC buying activity users are satisfied with AMIS. Forty-four percent (44%) indicated dissatisfaction. Users believe that more training is needed, that the system should be designed for the infrequent user, and that input redundancies should be reduced. Contracting officers and buyers believe that AMIS needs to provide more utility for their functions. Management needs analysis tools.

Many of the users' unmet needs will be provided by the Integrated Distributed System (IDS), a major AFSC AMIS development project. All improvements to AMIS must "fit" the information and automation needs of the user and must contribute to an improved procurement process. (K P)

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A NEEDS ASSESSMENT OF AIR FORCE
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SYSTEM (AMIS) USERS

I. Introduction

Background

DoD's procurement automation initiatives should be shaped by the needs of its acquisition mission and by the current and emerging information technologies.
(5:1.3)

The Air Force Systems Command (AFSC), Directorate of Contracting Automation is designing major improvements to the Acquisition Management Information System (AMIS). The information technology for major improvements is available. Daily interface with the field and a formal AMIS user working group have been primary sources for defining AMIS users' needs. To further validate that current initiatives will support user needs, the Directorate of Contracting Automation decided to survey a sample of buying activity AMIS users. The AFSC Aeronautical Systems Division (ASD) Directorate of Contracting and Manufacturing administered a survey to ASD buying personnel January through February 1989. The object of that survey was to determine how satisfied AMIS users were with the Procurement Management

System (PMS); a subsystem of AMIS. The survey results were briefed to the AFSC Contracting Directors Conference in April 1989 and to the AFSC Contract Automation Working Group in May 1989. Both groups expressed a desire to have a similar, command-wide survey that would determine the needs of AMIS users. The interests of these groups coincided with the AFSC Contracting Automation Directorate's (hereafter called the AMIS program office) desire to further validate that current AMIS program office development efforts would meet AMIS users' needs.

Problem Statement

An unacceptable level of uncertainty exists regarding the level of satisfaction and unmet needs of current AMIS users. Current AMIS development efforts, the most significant being the Integrated Distributed System (10:1), must meet user needs. In addition, user acceptance and satisfaction with changes to the system are key to ensuring added utility.

Purpose of the Study

The purpose of this study is to reduce the level of uncertainty regarding user satisfaction and unmet needs through surveying a sample of the AMIS users within buying activities of AFSC. The primary management question to be answered for the AMIS program office is:

Do the current and planned AFSC AMIS development efforts coincide with user-perceived needs?

Research questions relevant to answering the management question and that can be investigated by a survey are:

How satisfied are AMIS users with the current system?

What are the users' unmet needs?

Scope

This study does not attempt to determine the satisfaction and needs of AMIS users at AFSC Air Force Plant Representative Offices (AFPROs) or any other users except at the following AFSC buying activities:

Aeronautical Systems Division (ASD)
Wright-Patterson AFB Ohio

Ballistic Systems Division (BSD)
Norton AFB California

Electronic Systems Division (ESD)
Hanscom AFB Massachusetts

Munitions Systems Division (MSD)
Eglin AFB Florida

Space Systems Division (SSD)
Los Angeles AFB California

Eastern Space and Missile Center (ESMC)
Patrick AFB Florida

Western Space and Missile Center (WSMC)
Vandenberg AFB California

Rome Air Development Center (RADC)
Griffiss AFB New York

Air Force Flight Test Center (AFFTC)
Edwards AFB California

Air Force Space Technology Center (AFSTC)
Kirtland AFB New Mexico

Not included in this study were the Arnold Engineering and Development Center (AEDC), the Foreign Technology Division (FTD), and the Air Force Office of Scientific Research (AFOSR). These organizations are exempt from using AMIS per AFSC Regulation 70-13 (3:1).

II. Review of Related Literature

Because the objective of this research is of a practical, rather than theoretical, nature, the scope of the literature review was limited to identifying material directly relevant to the Acquisition Management Information System and the questions needed for the survey.

The purpose of AMIS as specified by AFSC Regulation 70-13 is to:

- a. Respond to the DOD directed Military Standard Contract Administration Procedures (MILSCAP), DOD 4105.63-M, (Dec 1977).
- b. Support the HQ AF Contract Management Division contract administration and payment system.
- c. Make contract information available to all AFSC levels involved in the acquisition decision making process through on-line queries and hard copy reports.
- d. Support contract writing and validate contract information as it is entered into AMIS through an automation device. (3:1)

To integrate the user into the continuous process of improving AMIS, AFSC created, in 1983, the Contract Automation Working Group (CAWG). The CAWG initially met quarterly but has since changed to meeting every other month. Members of the CAWG include representatives from AMIS buying activities, the AFSC Contract Management Division, the Air Force Institute of Technology, the Director and Deputy Director of the AMIS program office, information resource experts from AFSC, and the Assistant to the Deputy Chief of Staff (DCS) for Contracting, Air Force Systems Command. The CAWG has the following objectives:

- a. Solicit user needs.
 - b. Resolve database problems.
 - c. Prioritize AMIS modification requests.
 - d. Review written AMIS documentation.
 - e. Provide channels of communication to facilitate exchange of AMIS information among users.
 - f. Provide feedback to the AMIS office and to the DOD MILSCAP administrator concerning system modification.
 - g. Assist the Director of Contracting Automation.
- (1:26)

Involving the user in the design process "increases commitment and assures accuracy of requirements specifications (2:595)." The CAWG field members represent the users to the AMIS program office. They are not only the AMIS program office's key to understanding user needs but also are used to prioritize many development efforts. "The more active the users in information requirements determination and in approval of user interface design, the more likely they are to accept the system and utilize it appropriately (2:595)." The field CAWG representatives also act as change agents. "An active change agent can assure better communication with the user and minimize the possibility of misunderstanding (2:594)." They are depended on to accurately communicate AMIS developments to the field.

At a cost estimated by the General Accounting Office (GAO) to be \$25.5 million, the Federal Power Commission (9:i) developed but failed to successfully implement the Regulatory Information System. The purpose of the system was to provide computerized access to current energy data to agency officials across the nation. The GAO found several reasons that contributed to the failure of the Federal Power

Commission Regulatory Information System. First, user needs were not clearly defined. This was complicated by lack of communication among system developers and intended users. Second, they found that the system capabilities were implemented before successful demonstration. Other problems cited include lack of continuous involvement and support from top management, and disruptions in both organization and personnel (9:ii).

A past study prepared for the Air Force Business Management Center in 1982 cited the following problem with AMIS:

The lack of interaction between AMIS users and the AMIS office contributes to the inability of the AMIS staff to appreciate user needs and thereby make clarifications and corrections to the system and its procedures. (6:4)

The Contract Automation Working Group and this survey are positive indications that the AMIS program office is committed to involving users in the design of continued improvements to AMIS. This survey will serve as an initial baseline from which to measure changes in user satisfaction in the future.

III. Methodology

Research Design

This descriptive research effort attempts to systematically identify facts and characteristics (7:46) of the buying activity AMIS users that are relevant to information system design and development. The respondents were randomly selected from each buying activity participating in the survey. Based on the extensive written comments to the open-ended questions of the ASD survey, the interview technique was determined to be the most appropriate form of survey. However, the mail survey was chosen because of the added benefit of involving the most users in this needs validation effort.

The survey questions were developed by:

- a. Reviewing "AFSC Contracting Automation Update" newsletters to the field.
- b. Reviewing Contract Automation Working Group minutes.
- c. Reviewing available literature on AMIS.
- d. Reviewing MIS development literature.
- e. Reviewing proposed questions with the Director and Deputy Director of the AMIS program office.
- f. Observing an AFSC CAWG quarterly meeting.
- g. Reviewing questions with CAWG members at the Integrated Distributed System Design Conference.

- h. Reviewing the ASD survey responses (8:133).
- i. Reviewing a GAO study of a large government Management Information System.

Many of the questions and the responses were developed from responses to the ASD survey. As stated by Isaac and Michael in Handbook in Research and Evaluation:

One of the best ways of developing good objective questions is to administer an open-ended form of the question to a small sample of subjects representative of the population in which you are interested. These more lengthy answers provide the data from which objective-type answers are derived. (8:133-134)

During development, the questionnaire reached a maximum of 18 pages with 55 items. The CAWG members felt that many would not complete the questionnaire because it would take too much time, so with recommended deletions and question restructuring the questionnaire was reduced to nine pages with 44 items. According to Dillman in MAIL AND TELEPHONE SURVEYS: The Total Design Method, questionnaires with more than eleven pages and 125 items can be expected to experience a decrease in response rate. However, there is no significant difference in response rate for questionnaires that are less than eleven pages in length (4:55).

To increase the response rate, the cover letter (Appendix A) was signed by Brigadier General Meyer, Deputy Chief of Staff for Contracting, Headquarters Air Force Systems Command. The letter was one third of one page

(relatively short), and content-wise, to the point (8:136). The survey was mailed to the field on 28 and 31 July 1989.

The survey (Appendix A) had 44 items, one of which (item #44) was an open-ended question. The items were grouped in sections. The first section had ten questions which specifically addressed the Procurement Management System of AMIS. The second section (items #11-17) addressed AMIS as a whole, to include PMS. The third section (items #17-19) addressed contract automation in general. Item #20 asked the respondent to rank computer applications in order of importance to the respondent. Six applications were listed with two "Other" answers intended for capturing other potential applications that were not listed. The purpose of Item #21 was to find out how familiar the field users are with the "AFSC Contracting Automation Update" newsletter. Item #22 was asked to determine how aware the field is about Computer-Aided Instruction training. The purpose of items #23 and #24 were to determine how familiar the field is with the Automated Contracts Manager position and the Contract Automation Working Group, respectively. Items #25 and 26 were asked to determine how familiar the field users are with the process of recommending changes to AMIS, specifically the work order process. Item #27 asked the respondent to prioritize improvement efforts that would make AMIS more useful to the respondent. Nine areas of improvement were listed with one "Other" response intended

for capturing any improvement efforts that were not listed. The purpose of item #28 was to determine what sources are used and not used to resolve AMIS problems. Item #29 was specifically asked to determine to what extent the field has been trained via the established training processes.

The purpose of item #30 was to determine the computer literacy of the field in terms of familiarity. Basic computer terms, more advanced computer terms, AMIS specific terms, and contracting automation applications were listed. Items #31-33 were asked for the purpose of determining how much of a user's time is spent with AMIS related tasks. Item #34 sought to determine who was primarily making the inputs to PMS. The purpose of item #35 was to determine where the closest terminal with access to AMIS is with respect to the respondent. Item #36 asked the respondent to indicate whether or not the location of the terminal was convenient for the respondent. Items #37-44 were demographic questions. Item #44 was an open-ended question for general comments.

Questionnaires were returned by mail to the AMIS program office in an envelope provided with the survey. Responses were recorded and analyzed with the STATISTIX (7:9) software package. Frequency and cross-tabulations were performed on the data. To ensure accuracy of the data entered, a scatter diagram was performed on each variable (e.g. Question 1 by Question 1) to visually identify erroneously entered data.

When an outlier was observed, the data was reviewed and corrected as required.

Limitations

One of the limitations was that although the organization charts provided by each contracting activity were the most currently available, some of the selected survey subjects could have changed jobs, retired, or separated between the receipt of the lists during mid-July 1989 until the survey was released on 28 July 1989. Also, some of the subjects could have taken leave during the survey period. These factors would reduce the response rate. Additionally, the response period was during the next to last month of the fiscal year, traditionally a very busy time for contracting activities.

Another limitation of this survey was the breadth of coverage. This survey was administered to procurement clerks, procurement assistants, contract specialists (called buyers/negotiators in the survey instrument), contracting officers, procurement analysts, and procurement managers. An attempt was made to write the questions so that they would be answerable by all positions. Only one survey recipient called regarding the applicability of some of the questions. The survey subject was told to answer as many of the questions as possible.

There were some opportunities for bias in the development of the survey questions. First, as the

facilitator of survey development, the author could have inserted bias into which questions were selected and how the questions were asked due to his procurement experience as a contract negotiator at Aeronautical Systems Division.

Second, the author had to remain aware of the biases of the AMIS program office and Contract Automation Working Group. The author's observation at meetings was that both groups' desire to improve AMIS for the user compensated for any personal bias. Another general limitation has to do with the domain from which the questions were developed. The AMIS program office, the Contract Automation Working Group, the "AFSC Contracting Automation Update" newsletter, CAWG minutes, and the author's personal experience as a contract negotiator make up the domain. Not included in the domain were direct input from the contracting activity Automated Contracts Managers who are not also members of the CAWG. It also would have been valuable to interview, at least some, of the contracting activity directors and "users" at HQ AFSC.

IV. Results and Discussion

Overview

The survey response rate after 18 days was 50%. The findings presented below are based on those 251 responses. After the cutoff for analysis purposes, 25 additional completed surveys were received, increasing the actual response rate to 55%. Findings concerning AFSC AMIS users as a group are statistically significant at a confidence level of 90% with a margin of error of plus or minus 5%. Because of ASD's high number of responses, findings involving ASD are statistically significant at a 90% confidence level with a 10% margin of error. Findings with regard to buyers (contract specialists) are significant at the 90% confidence level with a margin of error of plus or minus 8.5%. No other contracting activities or functions have significance at the 90% confidence level. However, the author did note that there were few significant changes in response distributions with regard to skewness or peakedness after 100 responses were tallied. This indicates that the selection of subjects was effectively random.

Criteria was established for the sake of consistently describing frequencies and cross-tabulation findings. Responses for Items 1 through 19 were described in terms of agree-disagree or satisfied-not satisfied based on a five point Likert scale (8:142). For all items differences in

percentage of response were considered markedly different if the margin of difference (excluding neutral responses) was at least 2:1 and the percentage of neutral responses was 35% or less.

Cross-tabulations were performed with buying activity and function for Items 1-19. In addition, cross tabulations with acquisition experience, education, and user-perceived training were conducted on Item 11 (How satisfied with AMIS), and with Items 1 and 2 which had a relatively higher correlation with Item 11 than other items.

Survey Results

Item 1: PMS is an Effective Tool for Tracking the Overall Status of Contract Actions.

As depicted by Figure 1, respondents agreed considerably more than disagreed (by a margin of 2:1) that the Procurement Management System is an effective tool for tracking the overall status of contract actions. Approximately 59% of the respondents agreed, 12% were neutral and 29% disagreed.

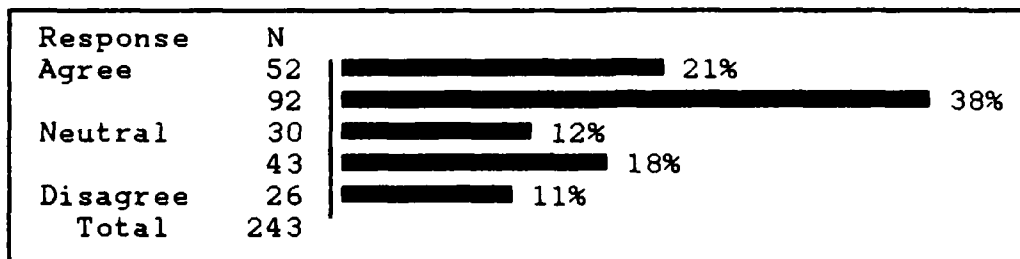


Figure 1. PMS is an Effective Tracking System.

Cross tabulations for Item 1 were conducted for the variables contracting activity, function, length of acquisition experience, education level, and user-perceived extent of AMIS training. Reference Figure 32 of Appendix B, all contracting activities except Ballistic Systems Division, Rome Air Development Center and the Air Force Flight Test Center, agreed more than disagreed that PMS is an effective tracking tool. Reference Figure 33 of Appendix B, procurement clerks, procurement assistants, buyers, contracting officers, and procurement analysts agreed more than disagreed that PMS is an effective tracking tool. Contracting officers, as a group, agreed proportionately more than any other function. Management, which includes group leaders, branch chiefs, division chiefs and directors, excluding the director of the contracting activity, exhibited approximately the same levels of agreement and disagreement for Item 1. With respect to acquisition experience (in years) and education, respondents as a group agreed more than disagreed that PMS is a useful tracking tool. For both variables, reference Figures 34 and 35 of Appendix B, the level of agreement was approximately 60%, with the level of disagreement increasing and the level of neutrality decreasing as experience and education levels increased. Reference Figure 36 of Appendix B, respondents who perceive that they have been adequately trained (as

measured by Item 12 of the survey), agreed (68%) that PMS is more effective for tracking; this was more than those who indicated that they were neutral (58%) as to the extent of training, or those who indicated that they were not adequately trained (55%).

Item 2. The More I Learn How to Use PMS, the More Useful it has Become to Me.

The respondents to the survey notably agreed more than disagreed (margin of 2:1) with Item 2. Fifty-two percent (52%) agreed, 23% were neutral, and 25% disagreed.

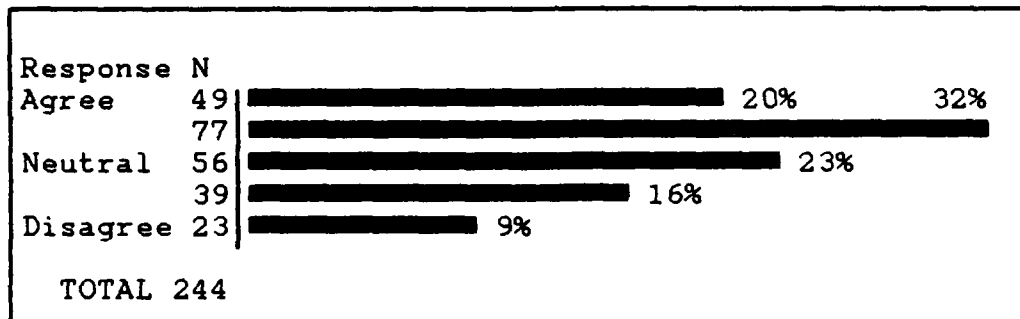


Figure 2. Learning More About PMS Helps.

Cross tabulations for Item 2 were conducted for the variables contracting activity, function, length of acquisition experience, education level, and user-perceived extent of AMIS training. Figure 37 of Appendix B, indicates that most contracting activities agreed that the usefulness of PMS increases with PMS training. Munitions Systems Division and Space Systems Division indicated the greatest

degree of agreement (72% and 69% respectively). Electronic Systems Division indicated the greatest degree of disagreement (48%). Figure 45 indicates that regardless of function, respondents agreed that increased PMS training increases the usefulness of PMS. As a group, procurement analysts agreed the most (73%), and contracting officers disagreed the most (37%). Figure 46 of Appendix B indicates that regardless of length of acquisition experience (in years), most respondents agree with Item 2. Those respondents with less than three years of experience agreed the most (61%), followed closely by the users with at least 10 years experience (56%). The group with at least three years experience, but less than ten years, had the lowest level of agreement (43%) and along with those with ten or more years of experience, had the highest degree of disagreement, 27% and 30% respectively. With regard to user-perceived extent of AMIS training, Figure 41 of Appendix B indicates that regardless of perceived training, AMIS users agree that more training would increase the usefulness of AMIS tools.

Item 3: PMS is More Useful to My Management Than it is to Me.

As indicated by Figure 3, respondents considerably agreed more than disagreed (margin of 3:1) that PMS is more useful to their management. Fifty-six percent (56%) agreed, 27% were neutral and 17% disagreed.

Cross tabulations were performed for the demographic variables, contracting activity and function. Reference Figure 42 of Appendix B, all contracting activities with the exception of Missile Systems Division, agreed more than disagreed that PMS is more useful to management.

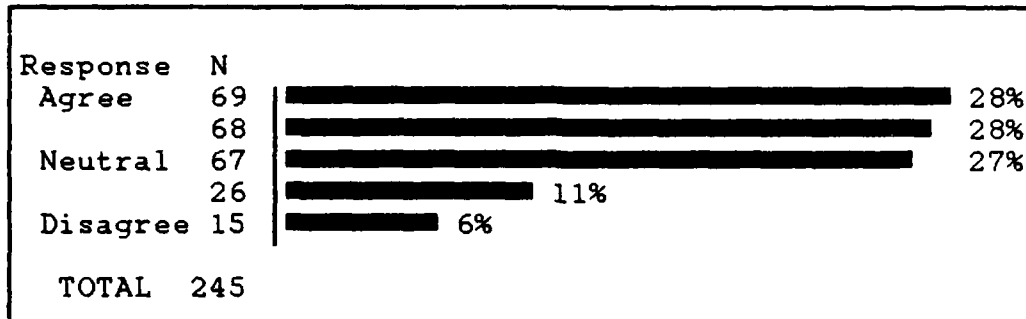


Figure 3. PMS More Useful to Management.

Munitions Systems Division had the lowest degree of agreement (28%) and, in comparison to other cross-tabulations with contracting activity, had a high proportion of neutral responses (48%). Analysis of function, as depicted in Figure 43 of Appendix B, indicates that, with the exception of management, all functions agreed more than disagreed that PMS is more useful to management.

Item 4: A One Page Summary of All Contract Actions for Each Buyer Would be Very Helpful to Me.

Respondents strongly agreed that a one page summary of contract actions is needed. Seventy-one percent (71%) agreed, 18% were neutral, and 11% disagreed as indicated in Figure 4.

As depicted in Figure 44 of Appendix B, all contracting activities agreed more than disagreed that a one page summary of contract actions is needed.

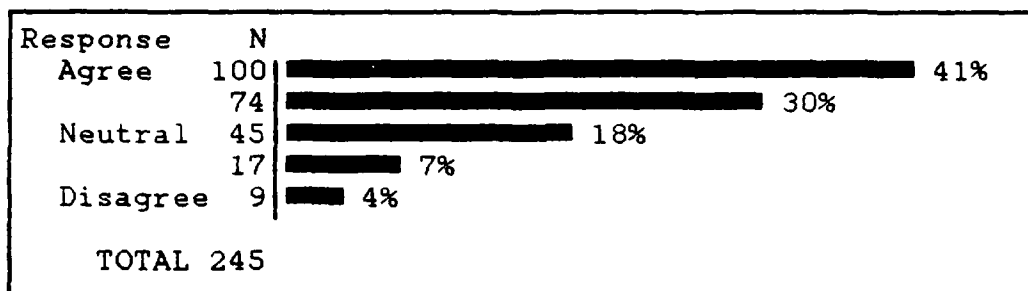


Figure 4. One Page Summary Needed.

All functions indicated a high level of agreement at approximately the same level (73%); contracting officers exhibited the highest level of agreement (83%).

Item 5: More Space is Needed for PMS Contract Status Comments (e.g. to explain delays).

Respondents agreed considerably more than disagreed (margin of 7:1) that more space is needed in PMS for explanatory comments. Sixty-nine percent (69%) agreed, 21% were neutral, and 10% disagreed as shown in Figure 5.

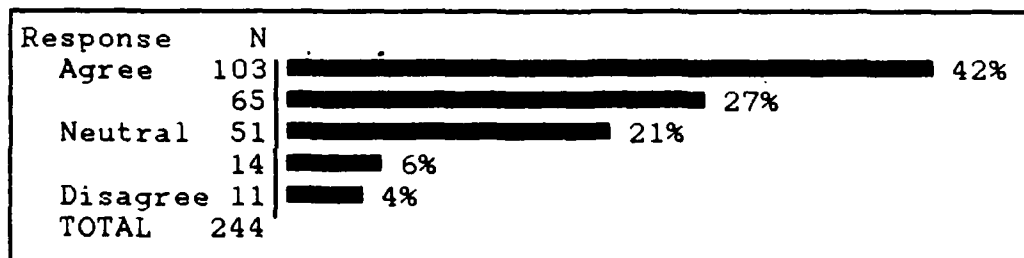


Figure 5. More Space Needed for Remarks.

Cross-tabulations with contracting activity and function revealed that AMIS buying activity users, regardless of where they work or their function, agreed more than disagreed that more space is needed for explanatory remarks. Reference Figure 46 of Appendix B, over 80% of the respondents agreed with Item 5 at Space Systems Division, Air Force Flight Test Center, and Air Force Space Technology Center. As depicted at Figure 47 of Appendix B, all functions agreed that more space is needed for explanatory comments.

Item 6: PMS is Used by Management to Evenly Distribute Workload.

Respondents markedly disagreed more than agreed (margin of 3:1) that management uses PMS to evenly distribute workload. As indicated at Figure 6, Fifty-five percent (55%) disagreed, 25% were neutral, and 20% agreed.

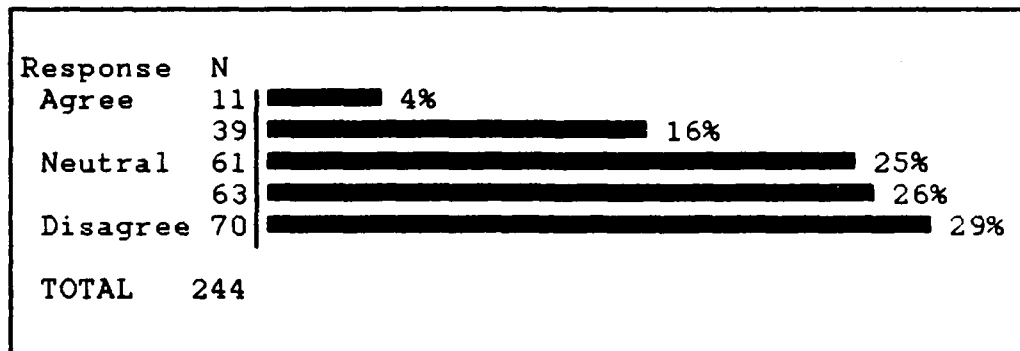


Figure 6. Management Assesses Workload with PMS.

AFSC buying activities disagreed more than agreed that managers use PMS to evenly distribute workload. Ballistic Systems Division disagreed the most at 69%; Space Systems Division agreed the most at 38%. All functions disagreed more than agreed with Item 6 as depicted at Figure 49 of Appendix B. Management disagreed more than agreed by a very narrow margin.

Item 7: Overall, the Standard PMS Lead-Times for Milestones are Realistic.

As a group, respondents disagreed more than agreed that PMS milestone lead-times are realistic. However, Figure 7 indicates that the proportion of disagreement to agreement responses was less than two to one; 51% disagreed and 27% agreed.

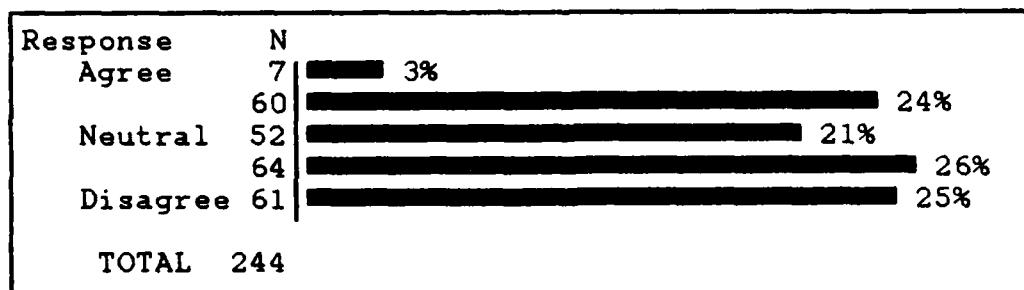


Figure 7. PMS Lead-times are Realistic.

With respect to buying activities, as shown at Figure 50 of Appendix B, ESD, WSMC, RADC, AFFTC, and AFSTC strongly disagreed that PMS milestone lead-times are realistic. ASD, MSD, and SSD disagreed, although with a ratio of disagree to

agree responses of less than 2:1. BSD and ESMC differed from the majority of buying activities by agreeing more than disagreeing (ratios less than 2:1) that PMS milestones are realistic. Analysis of functions, as shown at Figure 51, indicates that procurement analysts, management, and contracting officers disagreed more than agreed with Item 7. Buyers disagreed more than agreed, but by a ratio of less than 2:1. Procurement clerks and procurement assistants were approximately split between agreeing and disagreeing that PMS milestone lead-times are realistic.

Item 8: Buyers Should Input Their Own PMS Data.

As reflected by Figure 8, respondents agreed by less than a 2:1 margin, that buyers should input their own PMS data. Fifty-four percent (54%) agreed, 14% were neutral, and 31% disagreed.

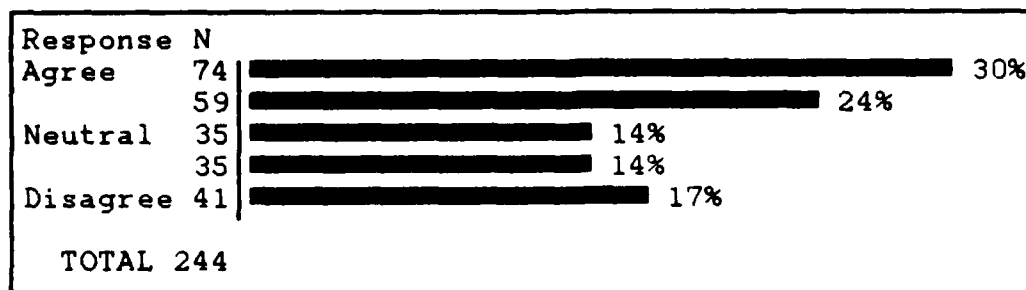


Figure 8. Buyers Should Input PMS Data.

Figure 52 of Appendix B indicates wide variability among buying activities with regard to whether or not buyers should input their own PMS data. One hundred percent (100%)

of all AFFTC responses agreed with Item 8. BSD, SSD, and RADC also agreed with Item 8. ESD, MSD, and AFSTC agreed, but by a ratio of less than 2:1. WSMC disagreed; ASD and ESMC also disagreed, but by a ratio of less than 2:1. As depicted at Figure 53 of Appendix B, contracting officers, management, procurement analysts, and procurement assistants agreed that buyers should input their own PMS data. Procurement clerks and buyers also agreed, but by a ratio of less than 2:1.

Item 9: PMS Provides a Complete "Picture" of a Buyer's Workload.

Figure 9 shows that respondents disagreed considerably more than agreed (margin of 4:1) that PMS provides a complete picture of a buyer's workload. Seventy-three percent (73%) disagreed, 9% were neutral, and 18% agreed.

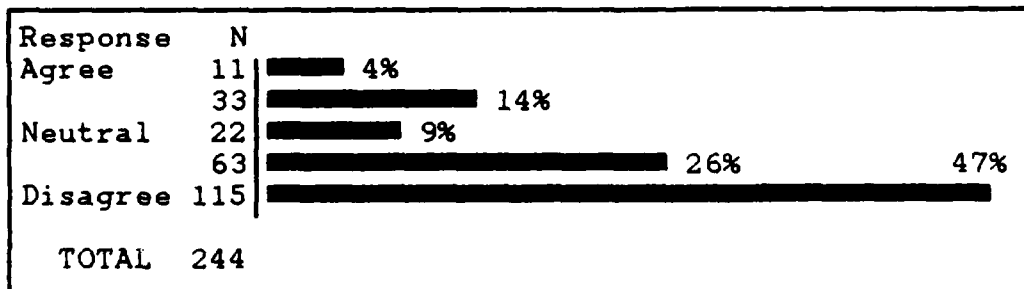


Figure 9. PMS Provides a Complete Picture.

Cross-tabulations were performed with contracting activity, and function. All contracting activities strongly disagreed with the statement that PMS provides a complete

picture of a buyer's workload (see Figure 54). As depicted in Figure 55, all functions, except procurement assistants, strongly disagreed. Management disagreed the most (89%).

Item 10: My Organization Relies Primarily on Another Computerized System, Other Than PMS, for Tracking Contract Actions.

Figure 10 shows that respondents disagreed considerably more than agreed (margin of 4:1) that an alternative system is being used for tracking contract actions. Sixty-five percent (65%) disagreed, 20% were neutral, and 15% agreed.

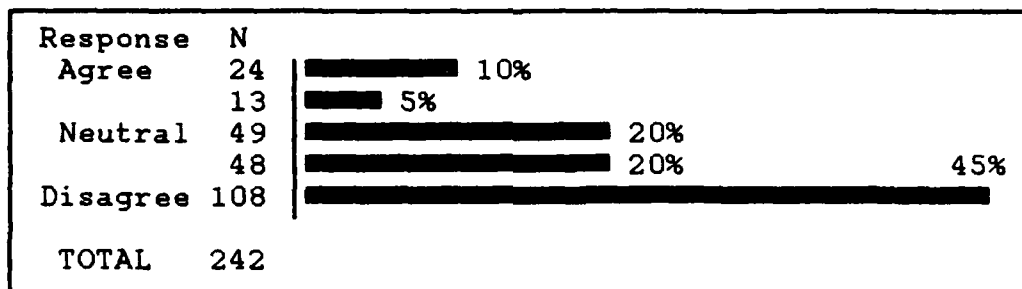


Figure 10. PMS is Not Primary Tracking System.

With the exception of RADC, buying activities primarily use PMS for tracking contract actions (see Figure 56).

Item 11: Please Indicate Your Degree of Satisfaction with AMIS.

Figure 11 indicates that respondents as a group can not be described as strongly satisfied nor dissatisfied with AMIS. Although strong dissatisfaction was not established, the direction of opinion can be said to at least favor

dissatisfaction. Forty-four percent (44%) indicated dissatisfaction, 20% were neutral, and 36% indicated satisfaction.

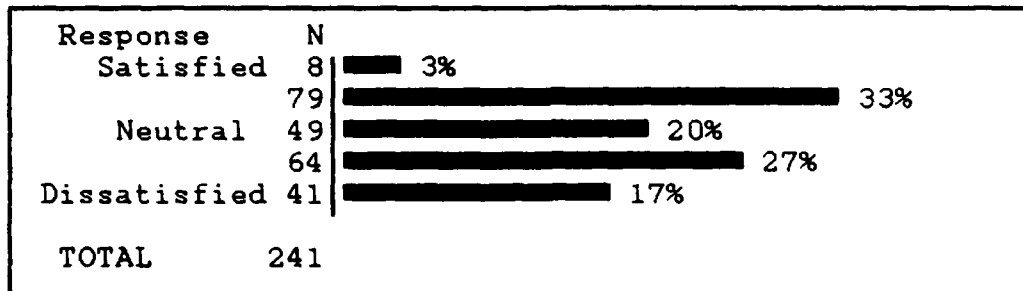


Figure 11. Satisfaction with AMIS.

Cross-tabulations were performed with contracting activity, function, acquisition experience, education, and perceived training. Reference Figure 57 in Appendix B, most contracting activities were strongly dissatisfied. ESD was the most dissatisfied (68%). ASD was the only contracting activity that was strongly satisfied (54%). SSD and ESMC were approximately even in responses of satisfaction and dissatisfaction. Reference Figure 58 at Appendix B, Procurement assistants were the most satisfied function (73%); the most dissatisfied function was management (57%). As depicted in Figure 59 at Appendix B, the proportion of responses between satisfaction and dissatisfaction were approximately equal for those with less than three years or more than ten years acquisition experience. Those with between three and ten years experience, were moderately satisfied. With regard to perceived training (Figure 61 of

Appendix B), those who perceive that they have not been adequately trained are moderately dissatisfied. Those who are neutral or feel they have adequate training showed moderate satisfaction.

Item 12: I have been Adequately Trained to Use Those AMIS Tools (e.g. PMS, DPCI) that I Need to Do My Job.

Respondents disagreed more than agreed that they have received adequate AMIS training. However, the ratio of disagreement to agreement was less than 2:1. Reference Figure 12, 58% disagreed, 11% were neutral, and 31% agreed.

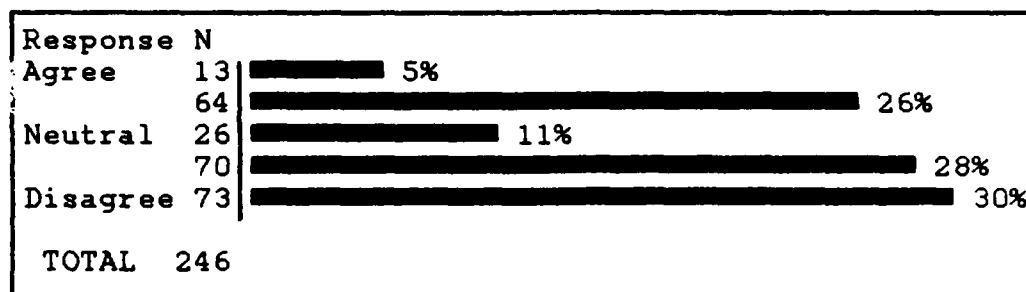


Figure 12. Users Provided Adequate AMIS Training.

As shown by Figure 62, BSD was the only contracting activity that strongly agreed (62%) that adequate training had been received. [Note: Even with this strong indication of receiving adequate training, BSD still was strongly dissatisfied with AMIS (55%).] Most other buying activities strongly disagreed that adequate training had been received. Reference Figure 63, buyers, contracting officers, and management strongly disagree that they have received

adequate training. Procurement clerks, assistants, and analysts agreed that they had received adequate training.

Item 13: I Spend a Lot of Time at the Terminal Waiting for a Response From the AMIS Computer.

Figure 13 indicates that respondents agreed considerably more than disagreed with Item 13 by a margin of 2:1. Forty-five percent (45%) agreed, 33% were neutral, and 22% disagreed.

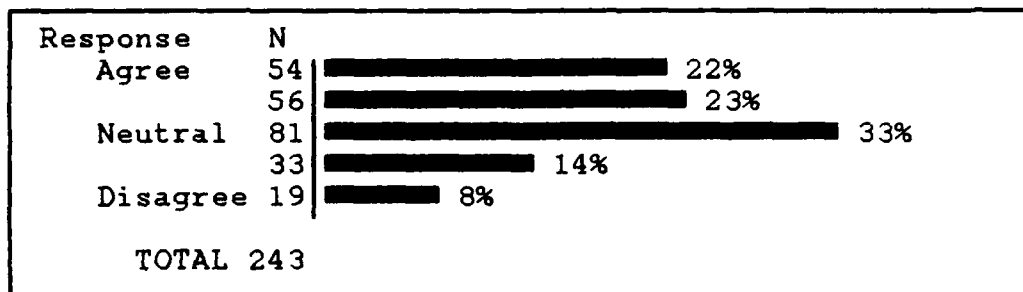


Figure 13. Wait Too Long at Terminal.

With regard to buying activities, only BSD, ESD, and SSD strongly agreed that too much time is spent waiting at the terminal (see Figure 64). AFFTC indicated an extremely high degree of neutrality (72%). By function (see Figure 65), only procurement clerks and assistants indicated a strong degree of agreement with Item 13.

Item 14: I Receive Sufficient Advance Notice of Changes to AMIS.

As depicted in Figure 14, respondents disagreed considerably more than agreed (margin of almost 3:1) that

they receive sufficient advance notice of changes to AMIS. Fifty-two percent (52%) disagreed, 31% were neutral, and 18% percent agreed.

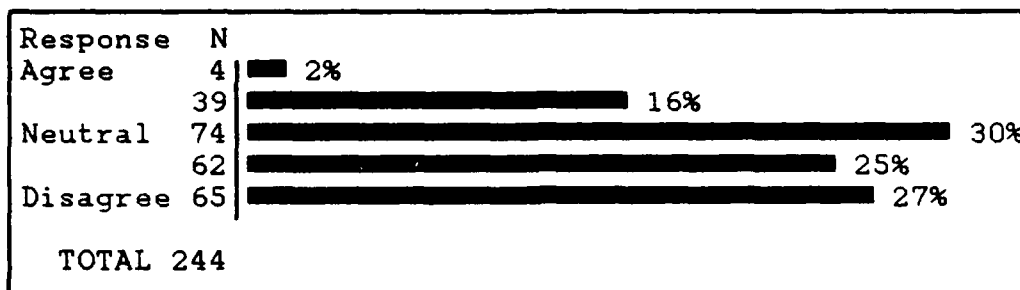


Figure 14. Advance Notice of Changes Received.

Reference Figure 66, a high percentage of neutral responses was received for Item 14. Except for MSD and AFSTC, buying activities disagreed that they receive sufficient advance notice of changes to AMIS. AFFTC and SSD disagreed the most (72% and 69% respectively). By function (see Figure 67), there was moderate to strong disagreement with procurement assistants disagreeing the most.

Item 15: There are No Problems with Most Changes to AMIS.

Respondents disagreed notably more than agreed (margin of 3:1) that there are no problems with most changes to AMIS. Forty-nine percent (49%) disagreed, 35% agreed, and 16% agreed as indicated in Figure 15.

Reference Figure 68 at Appendix B, among the contracting activities there was general disagreement with Item 15. As

a percentage, RADC disagreed the most (83%); MSD and AFSTC had the lowest levels of disagreement (28% and 31% respectively). As depicted in Figure 69 at Appendix B, there was generally disagreement among the functions. Procurement analysts were approximately even in opinion between agreement and disagreement.

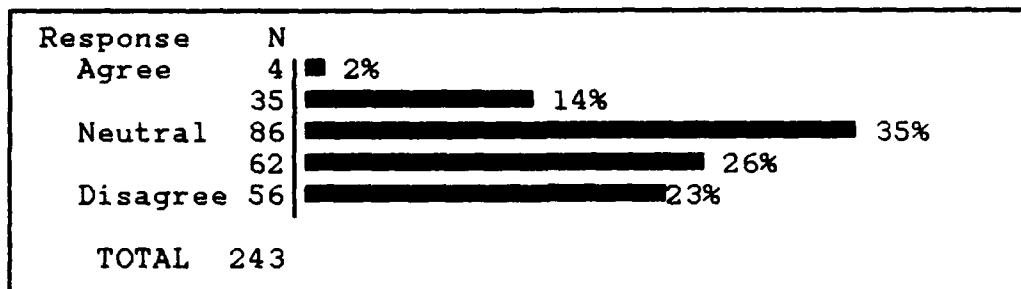


Figure 15. No Problems with Most Changes to AMIS.

Item 16: AMIS is Easy to Use (i.e. "user friendly").

Figure 16 indicates that respondents disagreed considerably more than agreed (margin of almost 3:1) that AMIS is user friendly. Fifty-two percent (52%) disagreed, 28% were neutral, and 20% agreed with Item 16.

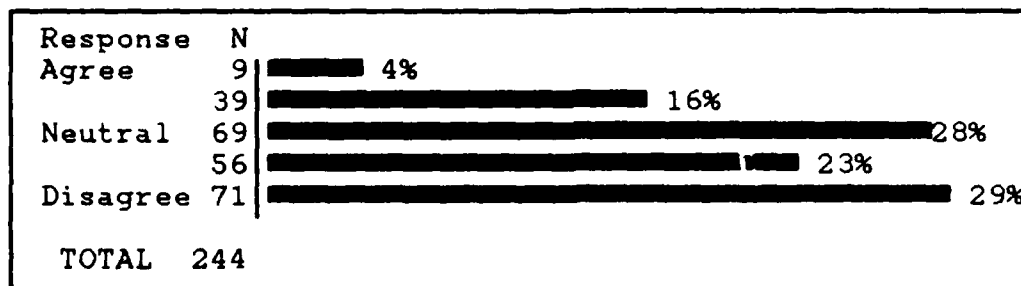


Figure 16. AMIS is Easy to Use.

As depicted at Figure 70 of Appendix B, only BSD, ESD, SSD and RADC strongly disagreed that AMIS is user friendly. The other buying activities moderately disagreed or were approximately even in their agreement and disagreement responses. ESD disagreed the most (80%). Reference Figure 71, procurement analysts strongly agreed that AMIS is user friendly (60%); all other functions disagreed, with management disagreeing the most (67%).

Item 17: I Believe my Management is Committed to Improving the Acquisition Process through Improved Use of Computer Applications and Tools.

By a margin of 3:1 respondents agreed markedly more than disagreed with Item 17. As depicted in Figure 17, 63% agreed, 18% were neutral, and 19% disagreed.

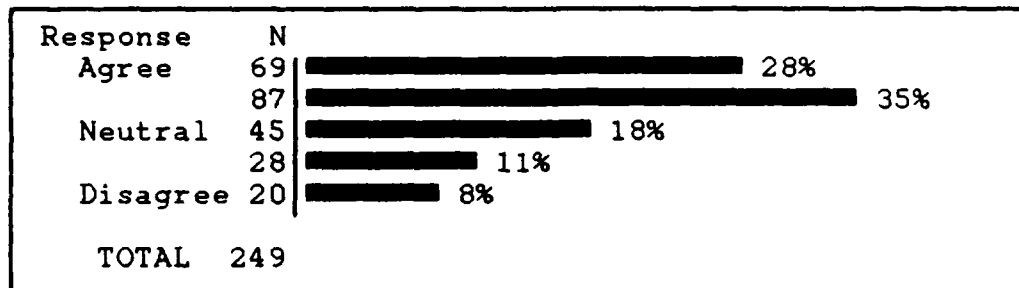


Figure 17. Management Committed to Improvement.

With respect to buying activity, SSD and ESMC had the highest level of agreement (83% and 81% respectively) with Item 17. Noteworthy is that zero disagreement responses were received from SSD. The only activity that did not

exhibit agreement was AFSTC. AFSTC responses were approximately split between agreement and disagreement. Procurement analysts showed the highest level of agreement among functions (87%) (see Figure 73 of Appendix B). All functions agreed, with procurement clerks agreeing the least (45%).

Item 18: The Benefits that I Realize from Computer Automation (e.g. PMS, DPCI) Outweigh My Costs (costs in terms of time and effort).

Respondents agreed slightly more than disagreed that the benefits realized by computer automation outweigh their costs. However, the margin of difference was less than 2:1. As depicted in Figure 18, 42% agreed, 22% were neutral, and 36% disagreed.

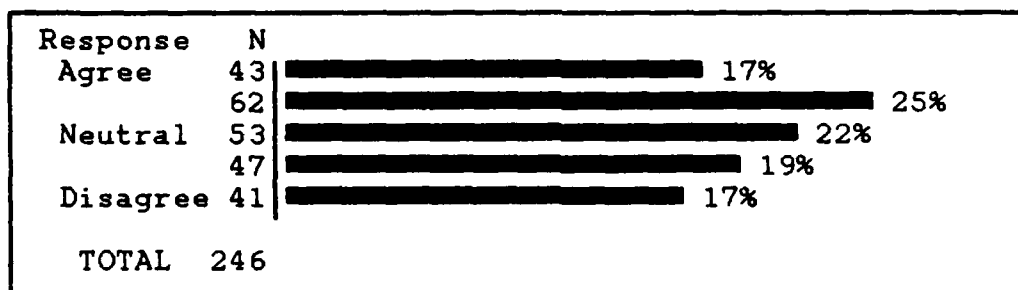


Figure 18. Benefits of Computer Outweigh Costs.

Reference Figure 74, AFFTC, ESMC, WSMC, SSD, and ASD agreed more than disagreed that the benefits of using the computer outweigh the costs. BSD disagreed the most (52%). With respect to function (see Figure 75), only buyers

As depicted in Figure 20, Imaging received more priority rankings of "1" than any other application. Electronic submission of Commerce Business Daily Notices received the second most rankings of "1", followed closely by an on-line print capability and DD Form 1547 (Weighted Guidelines) generation capability. The on-line document locator and on-line debarred/suspended list received considerably fewer "1" rankings.

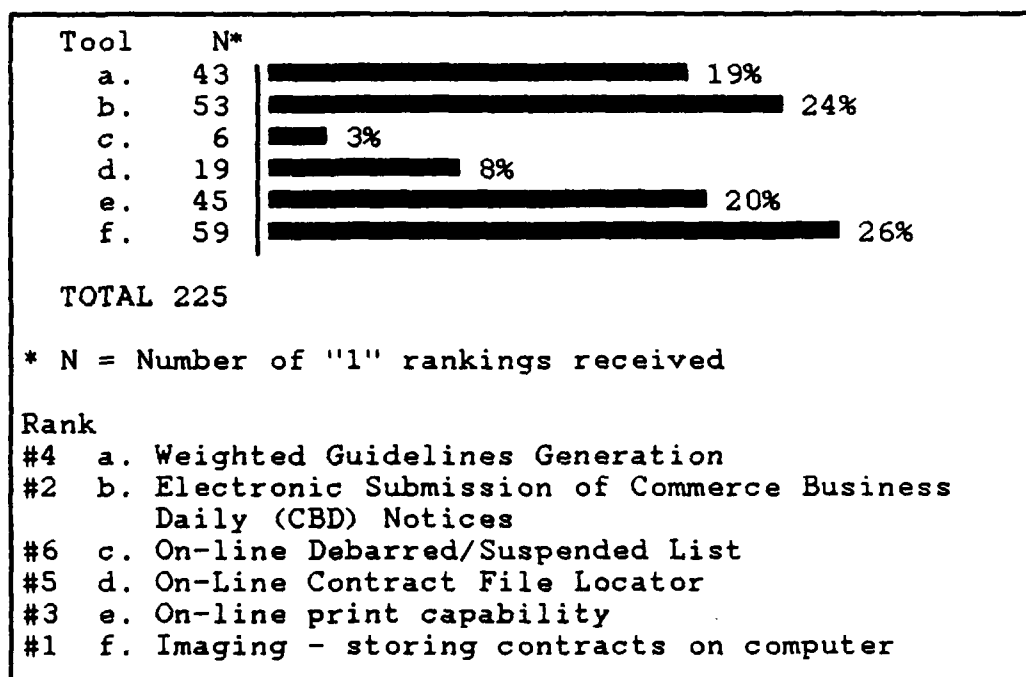


Figure 20. Ranking of Computer Applications.

Item 21: Familiarity with the Quarterly "AFSC Contracting Automation Update" Newsletter.

As shown in Figure 21, a significant proportion (73%) of the survey respondents are not familiar with the newsletter. Nine percent (9%) indicated that they were familiar with the

newsletter, but had not seen it for over six months; 17% indicated that they were familiar and had at least skimmed the letter within the past six months.

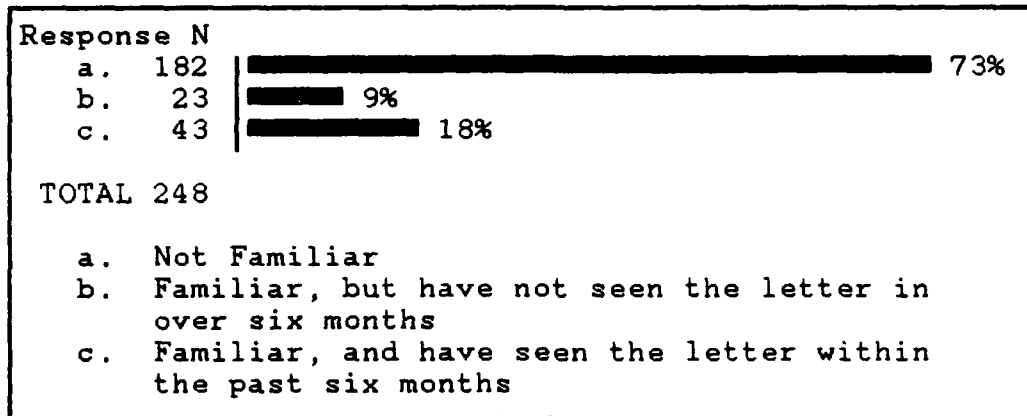


Figure 21. Familiarity with AFSC Newsletter.

Item 22: Awareness of Computer-Aided Instruction (CAI) Courses.

A significant proportion of the survey respondents indicated that they are not aware of CAI courses. As depicted in Figure 22, 74% were not aware and 26% were aware.

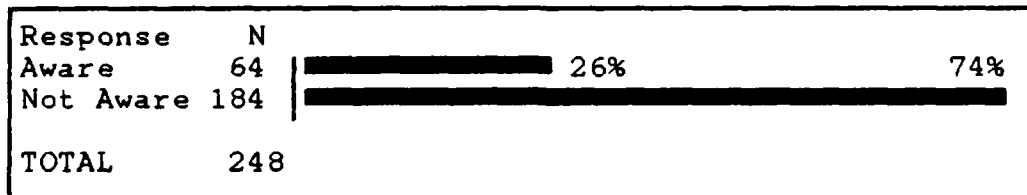


Figure 22. Awareness of Computer-Aided Instruction.

Item 23: Familiarity with Automated Contracts Manager Position.

A large proportion of respondents indicated familiarity with the Automated Contracts Manager (ACM) position. As shown in Figure 23, 73% indicated familiarity and 27% indicated that they were not familiar with the ACM position.

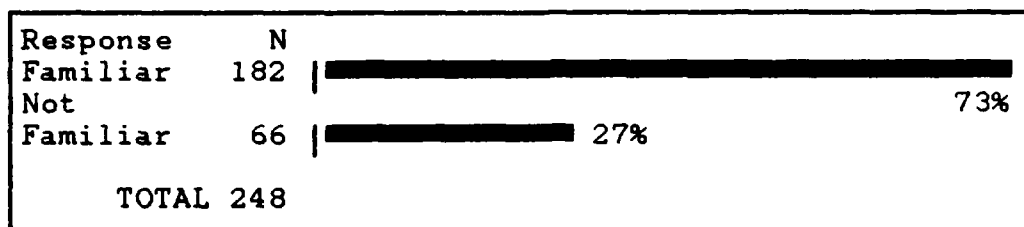


Figure 23. Familiarity with ACM.

Item 24: Familiarity with the Contract Automation Working Group (CAWG).

As shown in Figure 24, respondents indicated that they are generally not familiar with the CAWG.

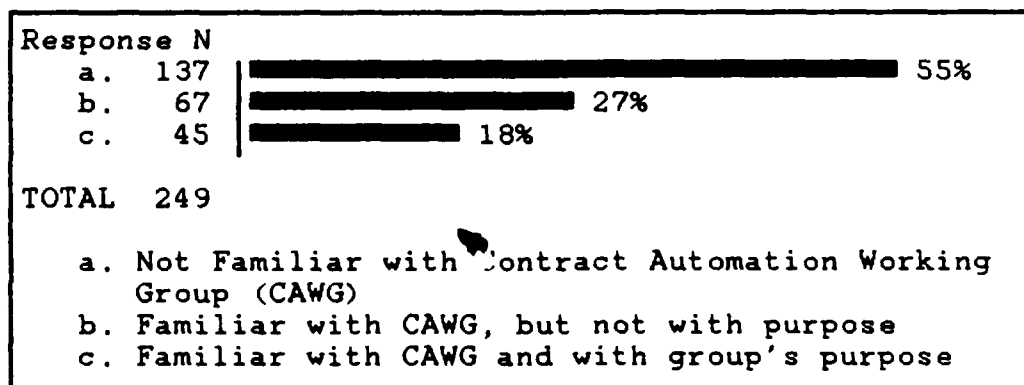


Figure 24. Familiarity with CAWG.

Fifty-five percent (55%) are not familiar at all with the AFSC Contract Automation Working Group, 27% had heard of the

group but were not familiar with its purpose, and 18% were familiar with the group as well as its purpose.

Item 25: Awareness of Work Order Process to Improve AMIS.

As shown in Figure 25, 87% of the respondents were not aware of their ability to initiate work orders to improve AMIS; 13% were aware.

	N		
Aware	33	13%	87%
Not Aware	216		
TOTAL	249		

Figure 25. Familiarity with Work Order Process.

Item 26: Submission of Work Orders.

Ten of the 248 respondents, 4%, indicated that they had initiated a work order. Of the ten who indicated that they had initiated a work order four were procurement analysts, three were managers, two were contracting officers, and one was a buyer. The buyer and one manager wrote in the margin next to Item 26 that nothing ever happened with the work order they initiated.

Item 27: Categorizing Improvement Efforts in Terms of Level of Priority.

As shown in Figure 26, the top three improvement efforts that should be a high level priority according to the respondents as a group were:

- 1) Providing more training
- 2) Making the input process easier
- 3) Improving the accuracy of data

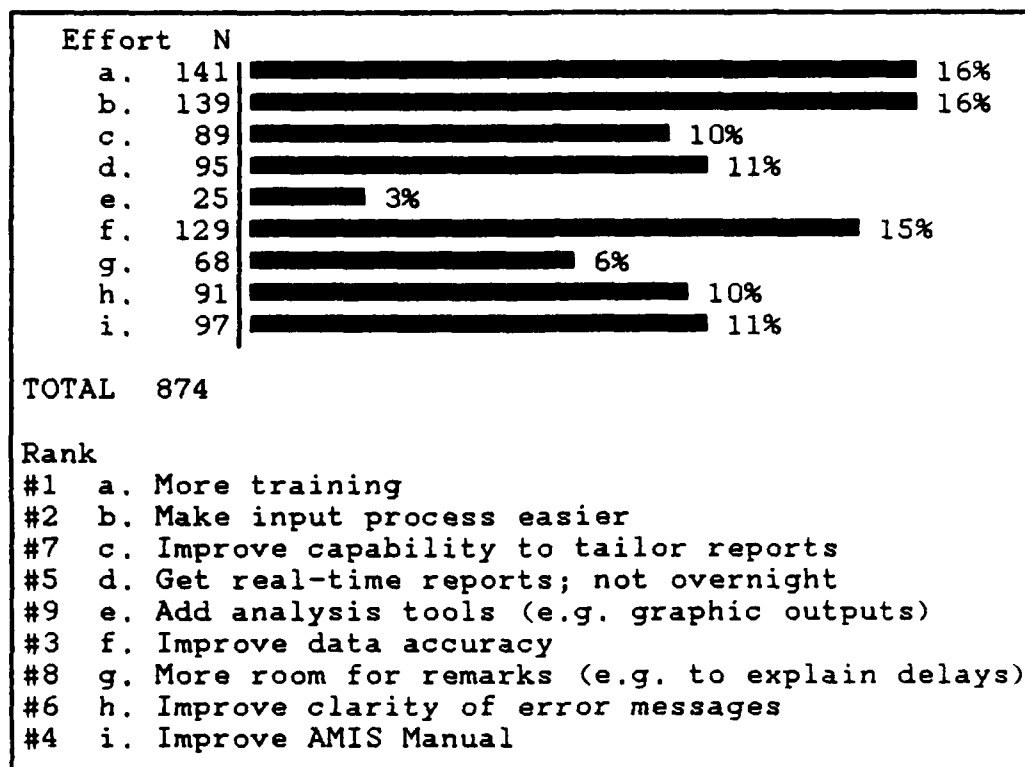


Figure 26. Ranking of AMIS Improvement Efforts.

Item 28: Sources of Help with Computer-Related Tasks.

As depicted in Figure 27, the top three sources of help for the respondents as a group were:

- 1) Organization's designated automation focal point
- 2) Fellow worker
- 3) AMIS Manual (AFSCM 70-390)

The least used sources are the local and AFSC automation newsletters.

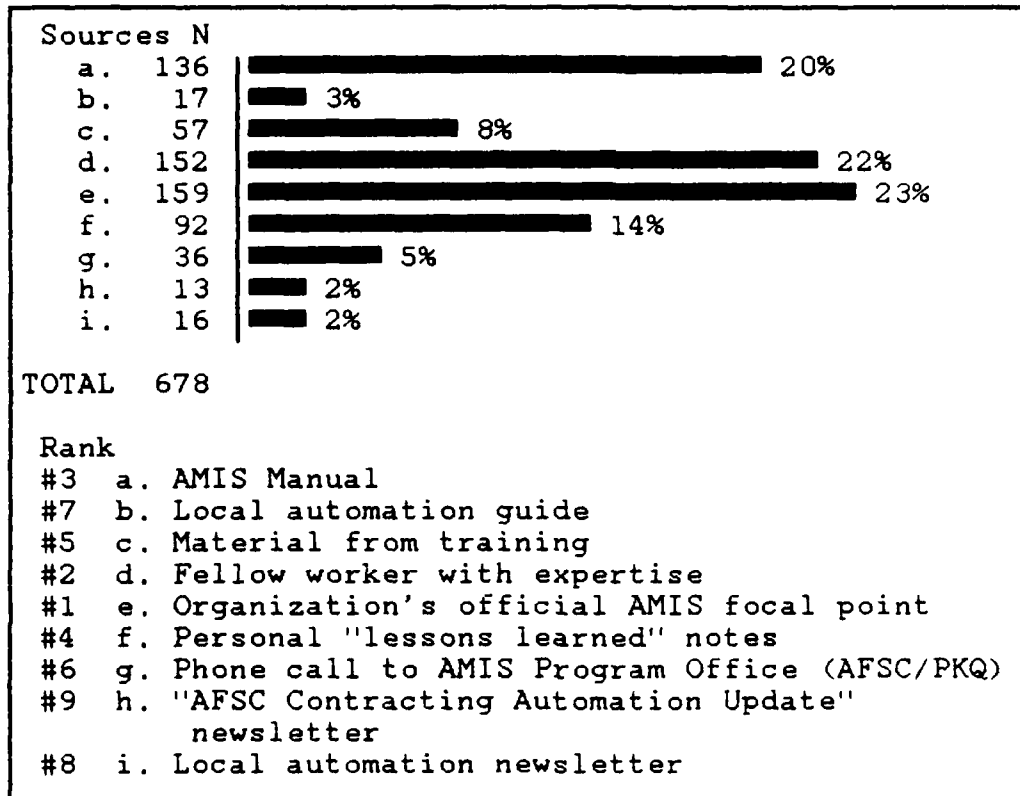


Figure 27. Sources of Help.

Item 29: Types of AMIS Training Received.

The training most received, as indicated by Figure 28, is Local One-on-One training. Fifty-four (54) respondents wrote the word "none", even though it was not provided as an alternate answer. Of the 28 respondents that indicated "Other" (excluding "none" responses), 13 wrote that they learned on their own. An example of comments within this category include "through a fellow worker," "trial and error," "reading the AMIS manual" or a "newsletter." Nine

"Other" responses wrote references to "in-house training."
 Twenty-five (25) respondents did not answer the question.

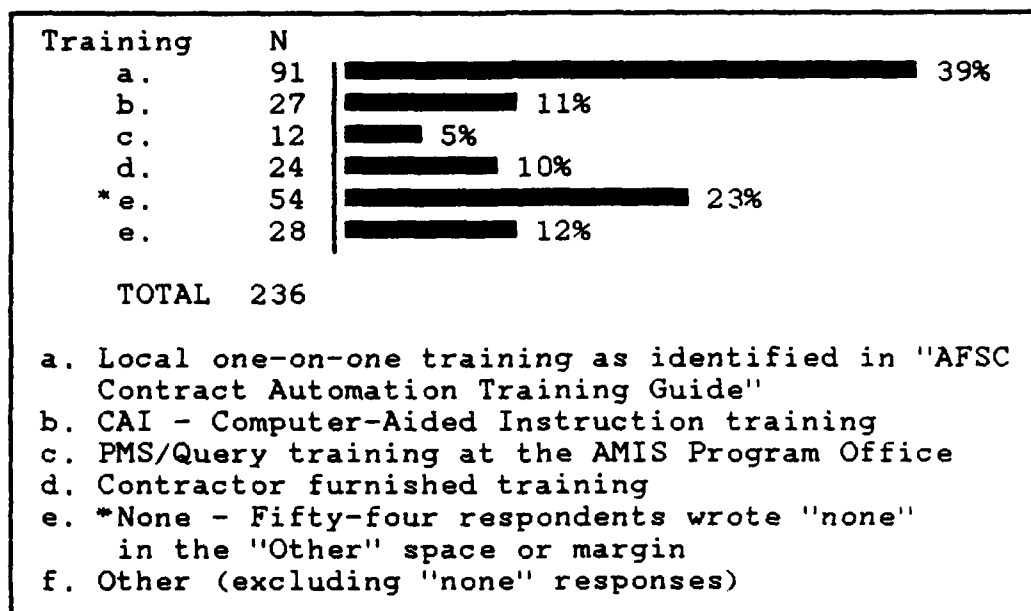


Figure 28. AMIS Training Received by Users.

Item 30: Familiarity with Computer-Related Terms.

Terms were classified into four groups:

Group 1 - Basic computer terms

Group 2 - Moderately complex computer terms

Group 3 - AMIS unique terms

Group 4 - Current Development and Application terms

Respondents had a high degree of familiarity with Group 1 terms and a high degree of unfamiliarity with Group 4 terms. With regard to Group 2 respondents as a whole were less familiar than familiar but by a margin of less than

2:1. Figure 29 identifies the relative differences in familiarity between and within groups.

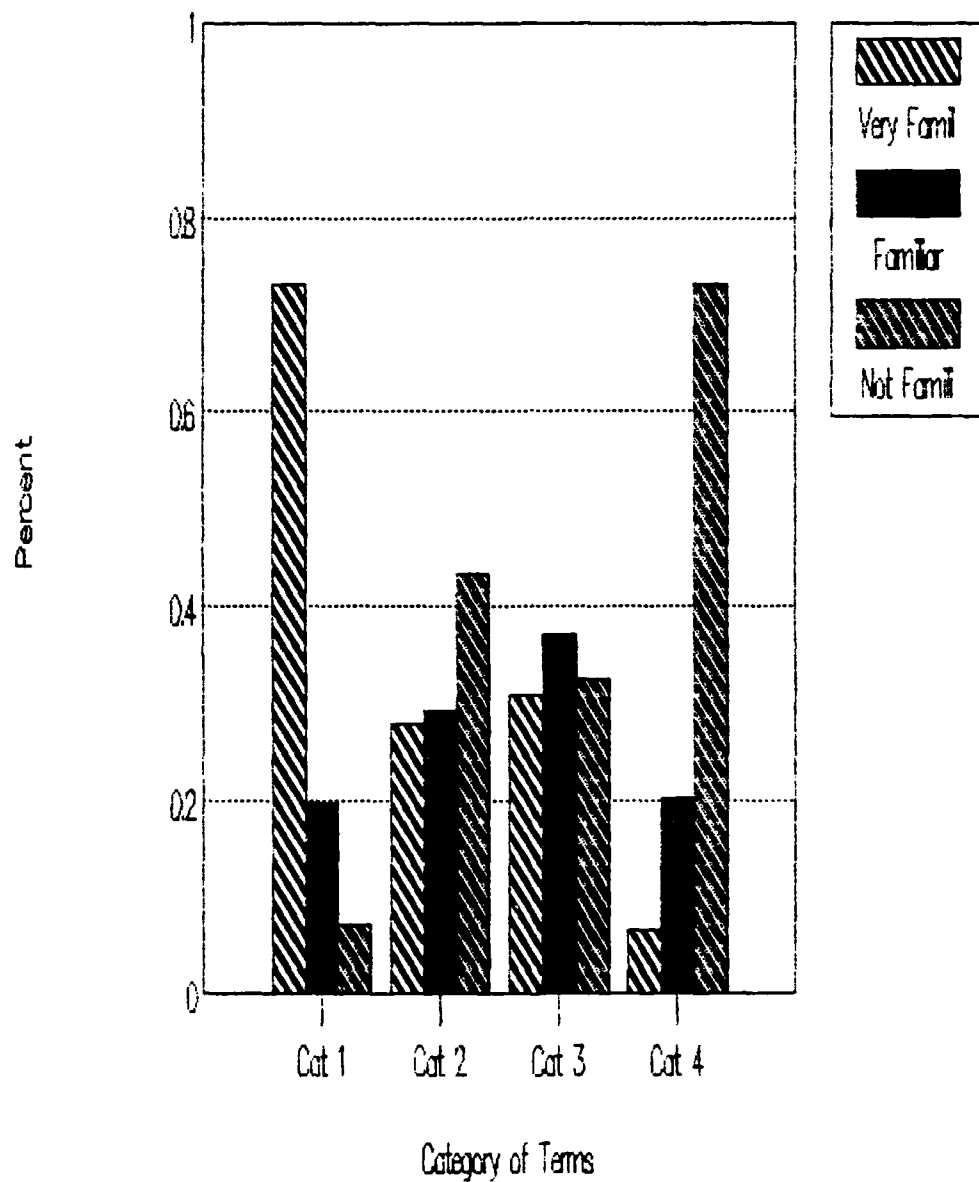


Figure 29. Computer Literacy.

Items 31 through 33. Percent of Work Week Involved with Entering, Retrieving, and Analyzing Data.

Respondents' answers were categorized for analysis purposes as follows:

- Category 1 - Respondent does not use AMIS at all.
- Category 2 - Respondent uses AMIS more than 0% and less than or equal to 5% of work week.
- Category 3 - Respondent uses AMIS more than 5% but less than or equal to 20% of week.
- Category 4 - Respondent uses AMIS more than 20% of a work week.

As depicted in Figure 78, forty-four percent (44%) of the respondents indicated that their total use of AMIS involves more than 20% of their work week. Twenty-nine percent (29%) indicated that they use AMIS more than 5% but less than or equal to 20%. Figure 79 reflects the combination of responses by function for Item 31 (data entry), Item 32 (retrieving data), and Item 33 (data analysis). A significant proportion (87%) of the procurement clerk and procurement assistant groups interface with AMIS more than 20% of their work week (Category 4). Approximately the same proportion of buyers, contracting officers, and management within their respective groups, interface with AMIS either more than 5% but less than 20% (Category 3), or more than 20% (Category 4). A significant proportion of procurement analysts indicated use of more than 0% but less than or equal to 5% of their work week.

Item 34: In Your Office, Who Primarily Inputs Data into PMS?

As depicted in Figure 30, procurement clerks primarily input PMS data. Fifty percent (50%) indicated that clerks primarily input data, 17% indicated that buyers primarily input PMS data, and 13% indicated that procurement assistants primarily input PMS data. Of the 49 respondents that answered "Other", 21 (8% of all respondents) indicated that both procurement clerks and procurement assistants primarily input PMS data.

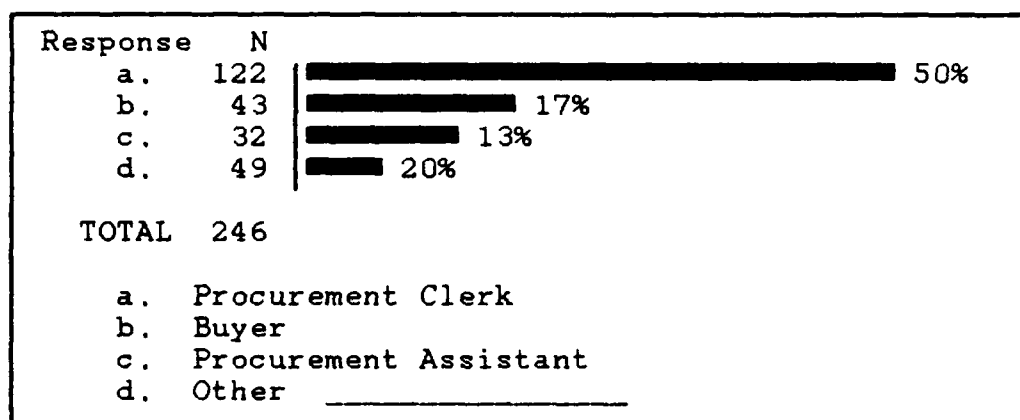


Figure 30. Primarily Inputs PMS Data.

Item 35: Where is the Closest Terminal with Access to AMIS Located in Relation to Your Desk?

As shown in Figure 31, respondents indicated that 36% of the terminals with access to AMIS were located at both the procurement clerks workstation and at the respondents workstation. The 88 responses identified in Figure 31 do not include any procurement clerk responses. Nineteen percent (19%) indicated that the terminals were located at a central computer workstation.

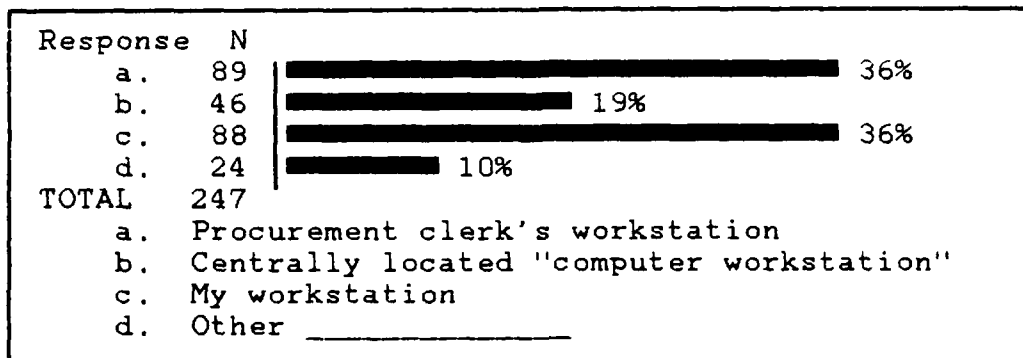


Figure 31. Closest Terminal with AMIS Access.

Item 36: Is the Location of the Closest Terminal with Access to AMIS Convenient for You?

Item 36 was directly referenced to Item 35 which asked whether or not the location of the closest terminal with access to AMIS was convenient to the respondent. Respondents notably agreed more than disagreed that the closest terminal with access to AMIS was convenient for them. Seventy-two percent (72%) agreed and 24% disagreed.

Item 44: Open-Ended Question Requesting Comments on AMIS.

All answers were evaluated and categorized. The categories receiving the most written comments were:

1. More training needed.
2. Make AMIS more user friendly.
3. Improve the cumbersome access process.
4. Reduce down-time of computer.
5. Design system for infrequent user.
6. Eliminate input redundancies.

Appendix C contains all the responses to Item 44. Sixty-four percent (64%) of the managers who responded to the survey provided comments in Item 44. Approximately 40% of each of the remaining functions provided written comments. Forty-two percent (42%) of those who indicated that they were not satisfied with AMIS (Item 11) and 36% that indicated that they were satisfied, provided written comments. Another observation was that 47% of those who provided written comments also felt that within their office that tasks that should be automated have been automated (Item 19). Only 36% of those who provided written comments felt that not enough has been automated in response to Item 19.

Discussion

Of all AFSC buying activities, only users at ASD indicated strong satisfaction with AMIS. Of the functions, procurement assistants are satisfied the most and management is satisfied the least. Buyers, contracting officers, and management feel that they are not adequately trained. Users, with the exception of procurement assistants, believe that AMIS is not user friendly. Changes to AMIS are perceived to be inadequately tested and users do not believe that sufficient advance notice of changes is given. Users believe that although PMS is useful for tracking contracting actions, it is more useful to "someone in upper management." Most contracting activities did indicate that PMS is the

primary tracking tool but users do not believe that milestones are realistic. Most managers do not use PMS to evaluate workload distribution and most users believe that PMS does not adequately reflect the total buyer workload. Most users do believe that if they had more PMS training that PMS would be more useful. In general, buying activity AMIS users believe that the benefits of computer automation outweigh their costs (in terms of time and effort). They also believe that management is committed to improving the acquisition process through use of computer applications and tools.

The most useful tools for users would be imaging (contract in computer), electronic submission of Commerce Business Daily notices, and on-line print capability. The key efforts that would provide the most benefit to users (for Item 27) would be providing more training, making the input process easier, and improving data accuracy. The first two efforts coincide considerably with the written comments provided in Item 44.

Most users are not familiar with the "AFSC Contracting Automation Update" newsletter, the AFSC Contract Automation Working Group, or the AMIS work order process (major elements of the automation improvement process). Users were familiar with their Automated Contracts Manager (their key problem solver).

One-on-one training is the most common form of AMIS training experienced by users. Most users were not aware of Computer-Aided Instruction training. Their most common sources of help with computer related tasks were the Automated Contracts Manager, a fellow worker, and the AMIS manual.

Most users are very familiar with basic computer terminology. They are familiar, in general, with more complex computer terms and AMIS specific terms. They are not familiar with terms concerning current developments (e.g. Integrated Distributed System) and applications. The most frequent users are procurement clerks and procurement assistants. Clerks input PMS data the most followed by buyers. Most users have computer terminals (with AMIS access) at their workstation or conveniently located nearby.

V. Recommendations

The AMIS program office can best serve the buying activity AMIS user community by not only upgrading the Acquisition Management Information System with technological advances (e.g. Integrated Distributed System), but by also committing resources to solving very specific user-identified problems.

Training processes, formal and informal, should be reviewed to determine, not only how more training, but also more effective training can be accomplished. If buying activity AMIS users had better exposure to the "AFSC Contracting Automation Update" newsletter, they would know that solutions either exist or are being developed to solve many of their problems. Increasing the visibility of current efforts to solve problems would lead to higher user satisfaction and acceptance of AMIS. Information from this letter should be integrated, if not already, into local buying activity formal and in-house training programs. It is important that this letter be made readily available as a source of help for each AMIS user. Coupled with buying activities increasing the exposure of AMIS users to this letter, the AMIS program office should either initiate training to increase the computer literacy of users or write the newsletter to match the computer literacy of the average AMIS user.

Another recommendation to improve training, is to develop a "quick reference" guide for AMIS users. Most commercial software packages come with small fold-out cards that briefly explain operative terms, commands, and procedures. Use of this card would help the user find an answer faster in contrast to searching through the AMIS manual or trying to contact the local Automated Contracts Manager.

The Integrated Distributed System (IDS) is being designed to eliminate many current AMIS user problems. This system will make AMIS easier for the infrequent user through extensive use of menus, windowing, and help screens (10:1). Members of the Contract Automation Working Group at the July 1989 Integrated Distributed System Design Workshop reviewed a prototype module of the system. Many of their suggestions were used to improve the design, specifically in terms of user friendliness. As part of the IDS implementation, databases will be distributed to the buying activities. As a result, AMIS user access should significantly improve.

Improved training and an effectively designed Integrated Distributed System will significantly increase the utility of AMIS for the user. In addition the AMIS program office should commit resources to resolve some key unmet user needs. Primarily for procurement clerks and assistants, the DD Form 350 input process should be made easier by reordering input items in a sequence logical to the person

inputting the data. The input process should be revised to eliminate the need to reinput data already in the database. All functions would benefit from having a one page summary of a buyer's contract actions. This summary would reduce the amount of unneeded information and paper that buyers currently receive on a weekly basis. Decision support and analysis tools must also be developed for buyers, contracting officers, and management.

All of the above changes are recommended assuming that they will contribute to improving the procurement process and not just the "automation" process. Will a new application, such as electronic submission of the Commerce Business Daily notice reduce procurement lead-time? Are we improving user satisfaction in areas that will result in improved processing and management of information?

The final and most important recommendation is that Air Force Systems Command assess information requirements at all levels of the procurement process. Who is using what information for what decisions? Current information system development efforts must "fit" the information needs of the users and improve the procurement process.

Appendix A: AFSC Contracting Automation Survey



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE SYSTEMS COMMAND
ANDREWS AIR FORCE BASE DC 20334-5000

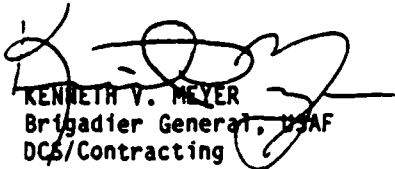
REF ID: PK

26 July 1989

SUBJECT: Contracting Automation Survey

TO: All Survey Participants

1. We need your help! We are in the process of designing an improved Acquisition Management Information System (AMIS) to better meet your needs.
2. The attached survey gives you the opportunity to express your ideas about how we can best make AMIS work for you. Please take a few minutes to complete the survey. Your answers are anonymous and will be kept completely confidential.
3. Mark your answers on the attached questionnaire and return it in the enclosed envelope. Should you have any questions, call Capt Garry Shafovaloff, Air Force Institute of Technology, Wright-Patterson AFB OH, AUTOVON 777-4437.
4. I look forward to your response!


KENNETH V. MEYER
Brigadier General, USAF
DCS/Contracting

1 Atch
Questionnaire

The Procurement Management System (PMS) is an AMIS capability that automates the storage and processing of data on contract actions from the time a buyer begins working on a requirement until the resulting contractual action is retired and the contract file is destroyed

QUESTIONS 1 - 10 SPECIFICALLY ADDRESS PMS.
(Circle the number to the immediate left of your answer.)

1. PMS is an effective tool for tracking the overall status of contract actions.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
2. The more I learn how to use PMS, the more useful it has become to me.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
3. PMS is more useful to my management than it is to me.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
4. A one page summary of all contract actions for each buyer would be very helpful to me.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
5. More space is needed for PMS contract status comments (e.g. to explain delays).

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
6. PMS is used by management to evenly distribute workload.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
7. Overall, the standard PMS lead-times for milestones are realistic.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE
8. Buyers should input their own PMS data.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE

9. PMS provides a complete "picture" of a buyer's workload.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

10. My organization relies primarily on another computerized system, other than PMS, for tracking contract actions.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

QUESTIONS 11 - 17 ADDRESS AMIS AS A WHOLE, to include PMS, Distributed Writing for Contractual Input (DPCI), and all other AMIS applications that you may use.

11. Please indicate your degree of satisfaction with AMIS.

	VERY						VERY
1	SATISFIED	2	SATISFIED	3	NEUTRAL	4	DISSATISFIED
						5	DISSATISFIED

12. I have been adequately trained to use those AMIS tools (e.g. PMS, DPCI, queries) that I need to do my job.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

13. I spend a lot of time at the terminal waiting for a response from the AMIS computer.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

14. I receive sufficient advance notice of changes to AMIS.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

15. There are no problems with most changes to AMIS.

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

16. AMIS is easy to use (e.g. "user friendly").

	STRONGLY		MILDLY		MILDLY		STRONGLY
1	AGREE	2	AGREE	3	NEUTRAL	4	DISAGREE
						5	DISAGREE

QUESTIONS 17 - 19 ADDRESS CONTRACTING AUTOMATION IN GENERAL.

17. I believe my management is committed to improving the acquisition process through improved use of computer applications and tools.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE

18. The benefits that I realize from computer automation (e.g. PMS, DPCI) outweigh my costs (costs in terms of time and effort).

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE

19. I believe that, within my position, the tasks that should be automated have been automated.

STRONGLY	MILDLY		MILDLY	STRONGLY
1 AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 DISAGREE

20. The following are examples of computer applications and tools that could be included in an improved contracting automation system.

Please rank these features in order of importance to you.
(1-most important, 2-second most important ... etc.)

Don't hesitate to add candidate computer applications and tools to the list!

- a. ☐ DD 1547 generation
- b. ☐ Commerce Business Daily Express
(Electronic submission of CBD notices)
- c. ☐ On-line Debarred/Suspended List
- d. ☐ On-line Document Locator (find stored contract files)
- e. ☐ On-line print capability
- f. ☐ Storing contract files on a computer that would provide me ready viewing access on my office computer (imaging).
- g. ☐ Other _____
- h. ☐ Other _____

21. The quarterly "AFSC Contracting Automation Update" newsletter, which has been published since Nov 87, provides information about AFSC contracting automation (including AMIS and BCAS). Which statement below best describes your knowledge of this "Update?"

- a. I am not familiar with this letter.
- b. I am familiar with this letter; however, I have not seen it for over six months.
- c. I am familiar with this letter and have at least skimmed it within the last six months.

22. Computer-Aided Instruction (CAI) courses are available through AMIS and you can take them right from your office. Certificates are awarded upon completion for each of the following courses:

- An Overview of AMIS
- How To Use AMIS
- Procurement Management System
- Contract Close-Out Procedures
- Undefinitized Document Control
- Contractual Document Guidance
- Data Base Queries/S2Ku Natural Language
- Prices (Price History Data Base System)

Were you aware of CAI training?

- a. YES
- b. NO

23. AFSCR 70-13 requires that each contracting activity appoint an Automated Contracts Manager (ACM) to act as the automation focal point for AMIS. Are you familiar with this position within your organization?

- a. YES
- b. NO

24. Are you familiar with the AFSC Contract Automation Working Group?

- a. I am not familiar at all with the group.
- b. I have heard of the group but am not familiar with what it does.
- c. I am familiar with the group and with its purpose.

25. Are you aware that you can initiate work orders to improve AMIS?

- a. YES
- b. NO

26. Have you ever submitted a work order to improve AMIS?

- a. YES
- b. NO

27. Prioritize the following efforts with respect to how much each would improve the usefulness of AMIS to you.

Use the following scale:

- 1 - This should be a high level priority.
- 2 - This should be a medium level priority
- 3 - This should be a Low level priority
- 4 - Should not be a priority at all

- a. ☐ Providing more training in AMIS applications and tools
- b. ☐ Making the input process easier
- c. ☐ Improving the ability to acquire reports tailored to my needs.
- d. ☐ Improving the response time for receiving reports (specifically change from overnight to real-time)
- e. ☐ Ability to analyze data to include graphic outputs (e.g. average time between milestones viewed on bar chart graph)
- f. ☐ Improving the accuracy of data in the computer.
- g. ☐ Increase the ability to enter narrative comments (e.g. milestone delay code remarks)
- h. ☐ Improve the clarity of error messages
- i. ☐ Improve User Manuals
- j. ☐ Other _____

28. Which of the following sources do you consult when you need help with your contracting automation related tasks?

(Circle all that apply)

- a. AFSCM 70-390 (AMIS Manual)
- b. A local contracting automation guide
- c. Training material
- d. A fellow worker who is not an officially designated contracting automation focal point.
- e. A person within my organization who has been officially designated as a focal point for contracting automation.
- f. My own personal "lessons learned" notes
- g. Call the AMIS Program Office (AFSC/PKQ)
- h. "AFSC Contracting Automation Update" newsletter
- i. Local Automation Newsletter
- j. Other _____

29. The "AFSC Contracting Automation Training Guide" describes the following types of training. Please indicate which training you have had.

- a. Local one-on-one
- b. Computer-Aided Instruction
- c. PMS/Query training at AFSC/PKQ
- d. Contractor furnished training
- e. Other _____

30. Please indicate how familiar you are with the terms listed below.

Use the following scale:

1. Very familiar
2. More than familiar
3. Familiar
4. Slightly familiar
5. I am not familiar at all.

- a. _____ Help Screens
b. _____ On-line
c. _____ User-Friendly

- d. _____ Data Base Management System (DBMS)
e. _____ PRICES (Price History Data Base)
f. _____ Mini-computer

- g. _____ Fourth Generation Language (4GL)
h. _____ DPCI (Distributed Processing for Contractual Input)
i. _____ Source Data Automation (AMIS Forms)

- j. _____ Mainframe
k. _____ FAR On-line
l. _____ Queries

- m. _____ String queries
n. _____ Natural Language commands
o. _____ Automated PNM and Pricing System (APPS)

- p. _____ Award Fee Tracking System (AFTS)
q. _____ Integrated Distributed System
r. _____ MILSCAP (Military Standard Contract Administration Procedures)

- s. _____ Menus
t. _____ Real-time

31. Approximately what percent (%) of your work week is involved with data entry (e.g. inputting data, resolving input problems, etc.)?
_____ %
32. Approximately what percent (%) of your work week is involved with retrieving data (e.g. queries, reports, etc.)?
_____ %
33. Approximately what percent (%) of your work week involves using output (e.g. planning, preparing status reports, assessing workloads, etc.)?
_____ %
34. In your office, who primarily inputs data into PMS?
- a. Clerks
 - b. Buyers
 - c. Procurement Assistant
 - d. Other _____
35. Where is the closest terminal with access to AMIS located in relation to your desk?
- a. Clerk's workstation
 - b. Centrally located "computer workstation"
 - c. My workstation
 - d. Other _____
36. With regard to your answer to Question 35, is this location convenient for you?
- a. Yes
 - b. No
 - c. Other _____

QUESTIONS 37 - 43 ARE BACKGROUND QUESTIONS.

37. I am a:

- | | |
|----------------------------------|-------------------|
| a. Contracting Officer | g. Group leader |
| b. Contracting Officer and Buyer | h. Branch Chief |
| c. Clerk | i. Division Chief |
| d. Procurement Assistant | j. Director |
| e. Buyer/Negotiator | k. Other _____ |
| f. Procurement Analyst | |

38. My present grade/rank is:

- a. If Civilian GS-____ or GM-____
- b. If Military, Grade E-____ or O-____

39. What type of contracting do you do?

- a. Research and Development (R&D)
- b. Systems
- c. Both R&D and Systems
- d. Other _____

40. What type of organization do you support?

- a. Systems Program Office (SPO) that supports one major weapon system
- b. Systems Program Office that is responsible for a variety of weapon systems and/or subsystems.
- c. Research and Development Laboratory
- d. Test Organization
- e. Other _____

41. My cumulative experience in a Government acquisition-related job is:

- a. Less than one year
- b. At least one year but less than three
- c. At least three years but less than five
- d. At least five years but less than ten
- e. At least ten years but less than fifteen
- f. Fifteen years or more

42. I work at

- | | |
|---------|----------------|
| a. ASD | g. WSMC |
| b. BSD | h. RADC |
| c. ESD | i. AFFTC |
| d. MSD | j. AFSTC |
| e. SSD | k. Other _____ |
| f. ESMC | |

43. My highest level of education is:

- a. High School Diploma or Equivalent
- b. Associates Degree
- c. Bachelors Degree
- d. Masters Degree
- e. Doctoral Degree
- f. Other _____

44. Please take this opportunity to add any additional suggestions or comments.

You may want to elaborate on the best features, worst features, missing features, or features that you think should be deleted from AMIS. You may want to describe an ideal workstation in terms of computer applications and tools.

ALL suggestions and comments are welcome!

THANK YOU FOR PARTICIPATING IN THIS SURVEY!

PLEASE PUT THE QUESTIONNAIRE IN THE RETURN ENVELOPE AND PLACE IT IN BASE DISTRIBUTION.

Appendix B: Support Charts for Chapter IV

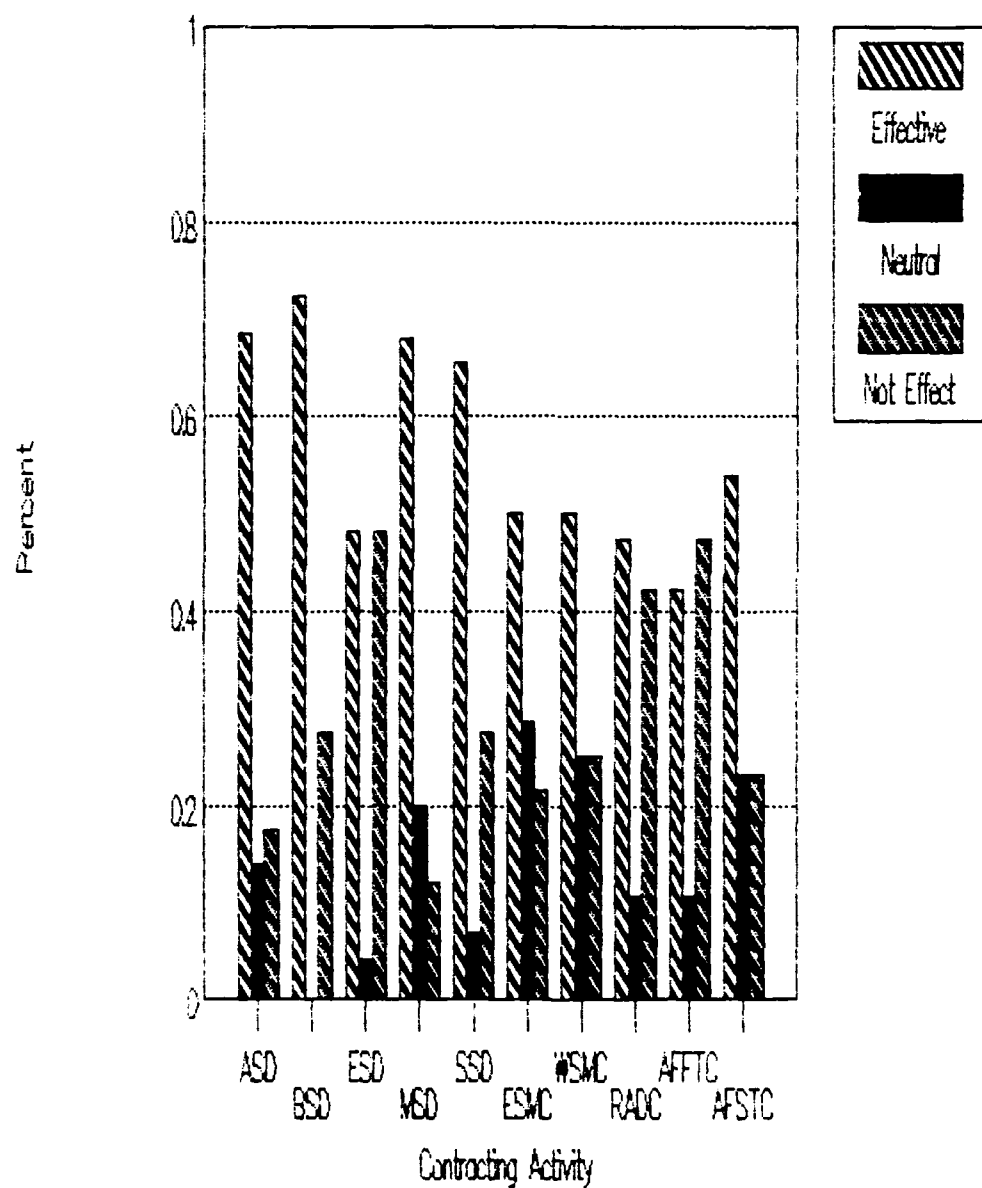


Figure 32. PMS Effectiveness by Buying Activity.

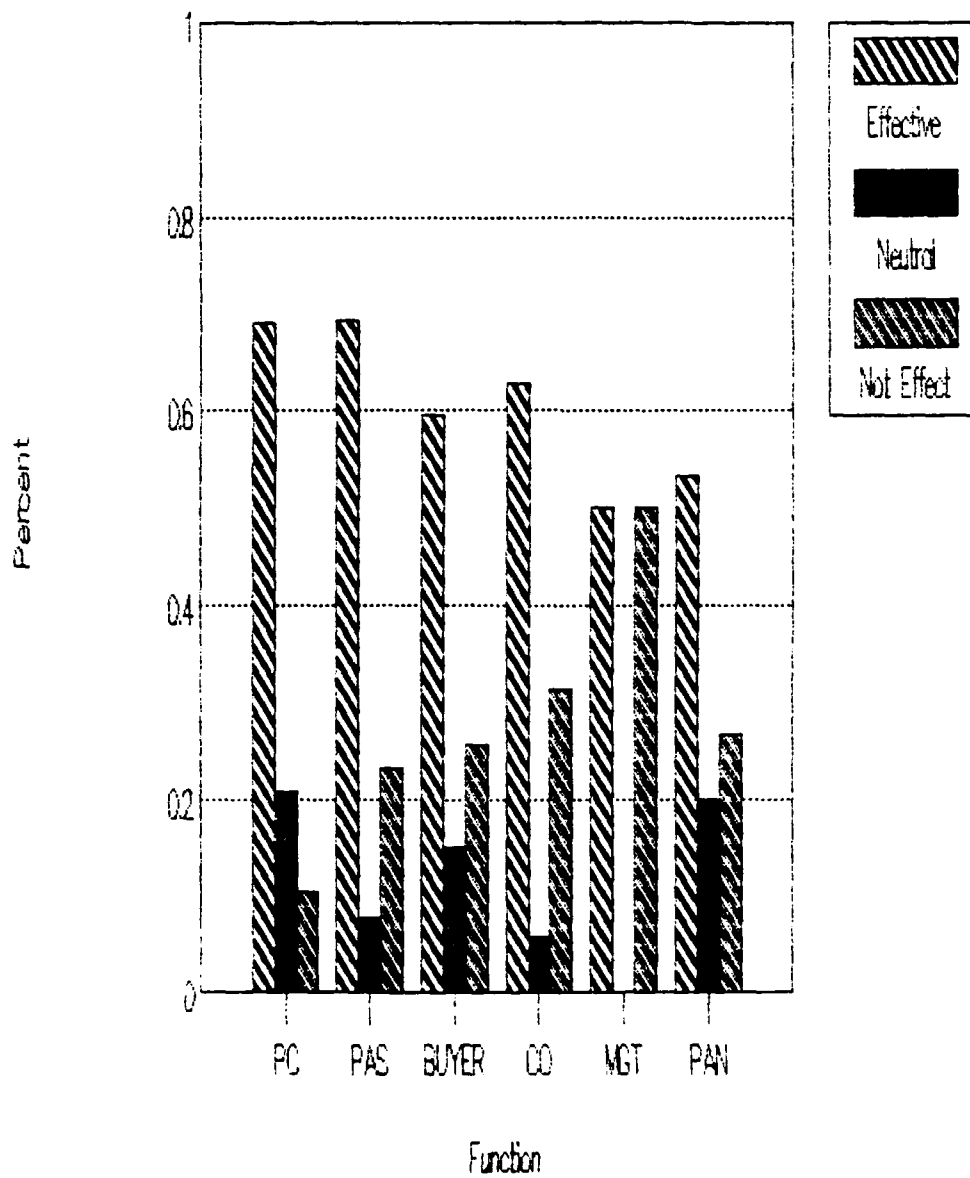


Figure 33. PMS Effectiveness by Function.

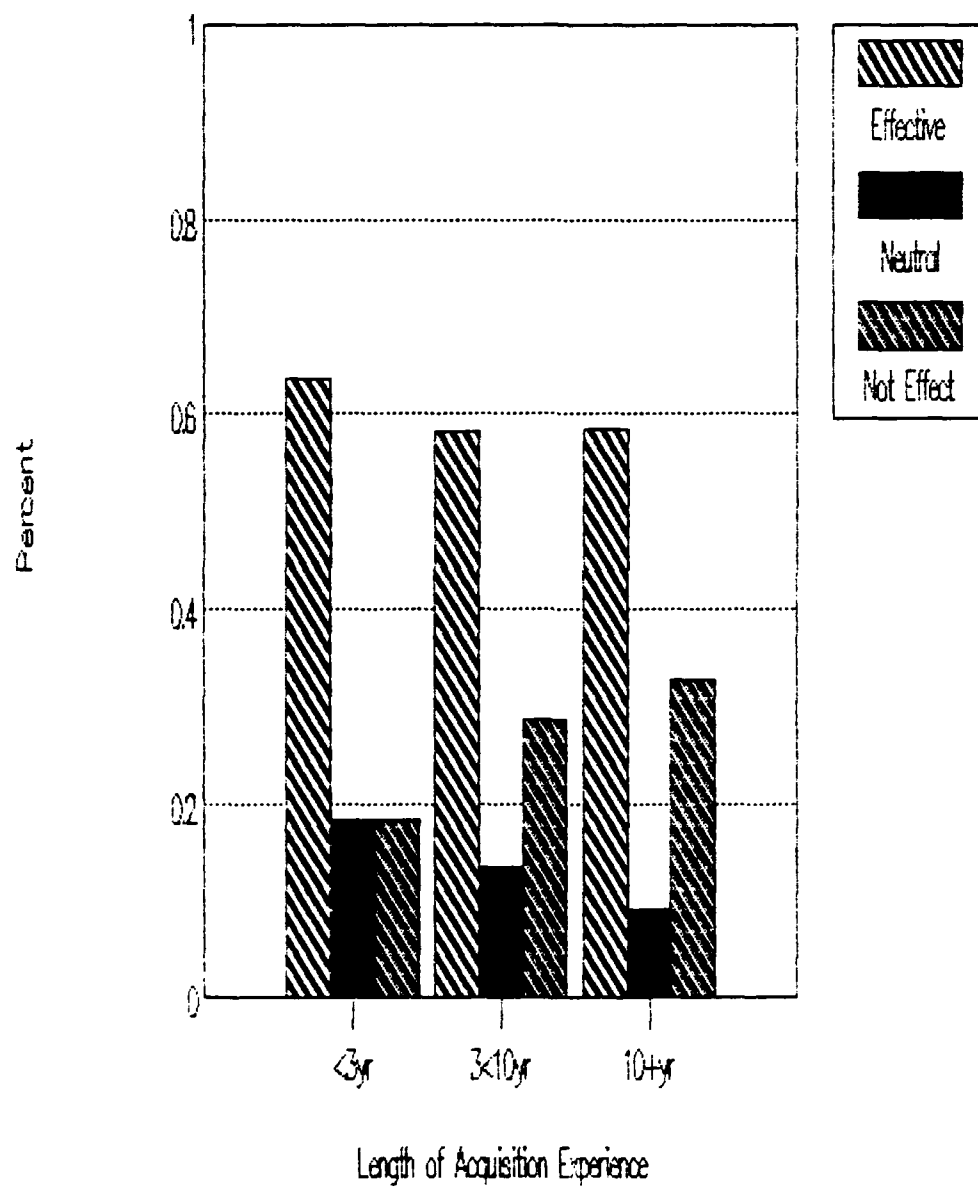


Figure 34. PMS Effectiveness by Experience.

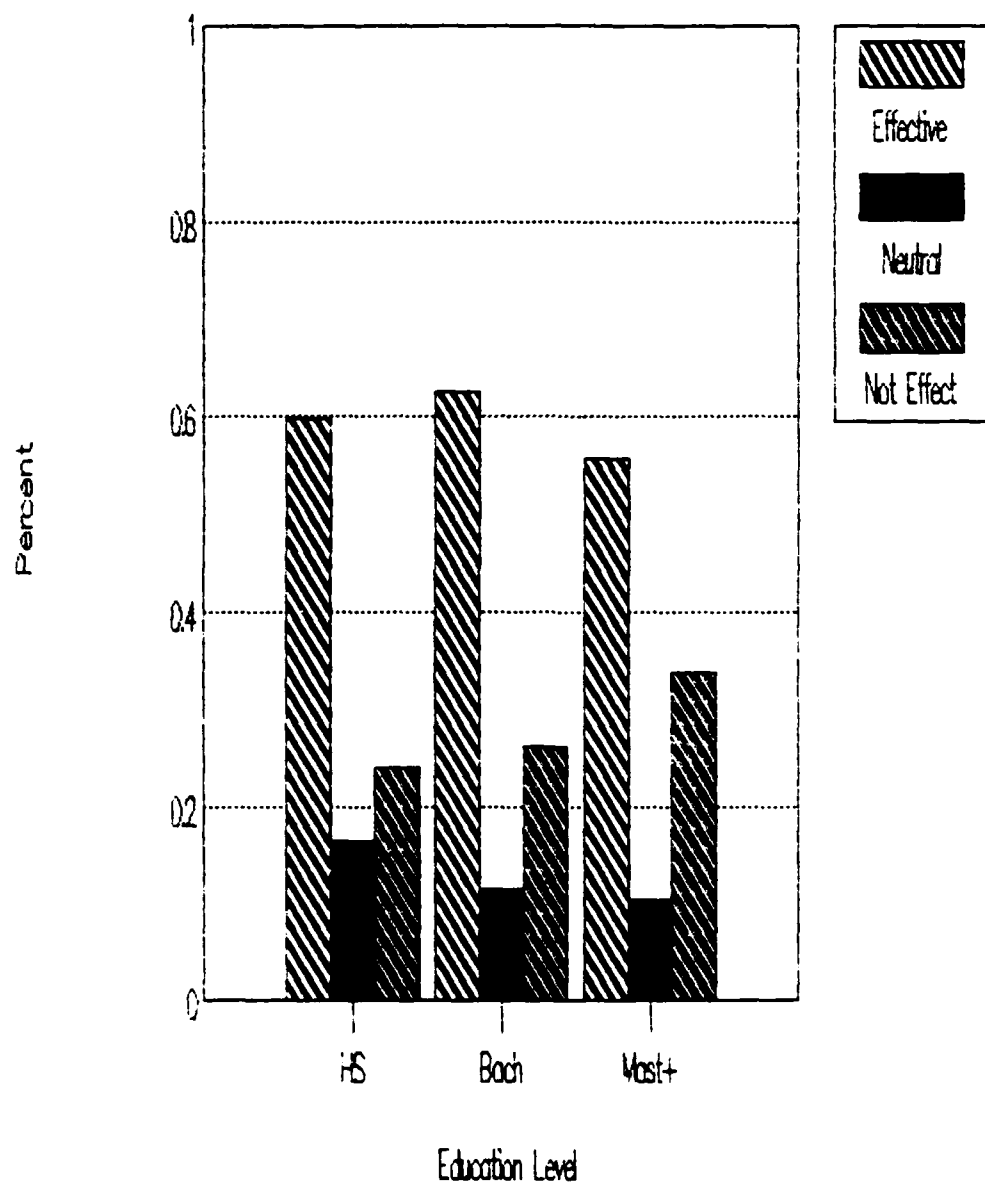


Figure 35. PMS Effectiveness by Education.

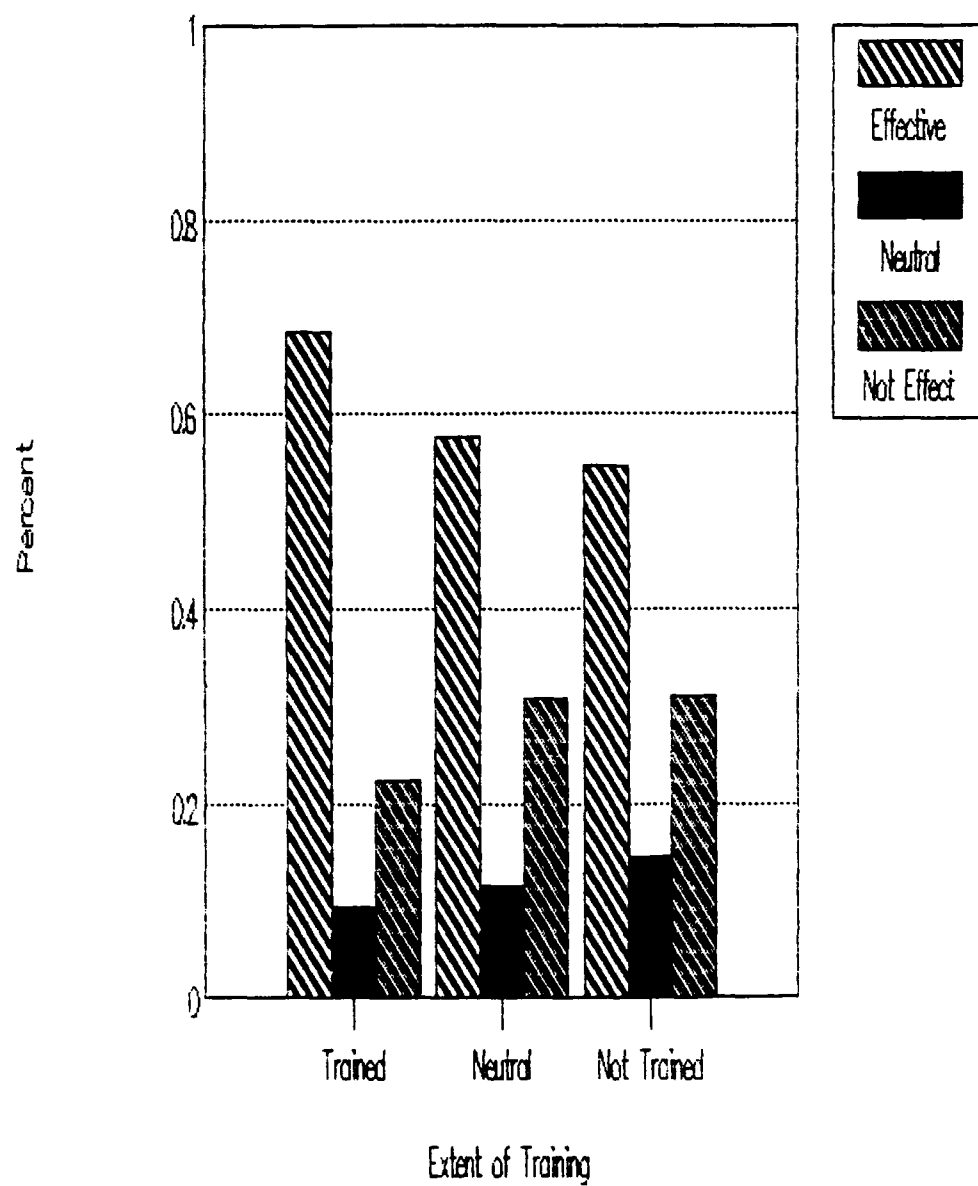


Figure 36. PMS Effectiveness by Training.

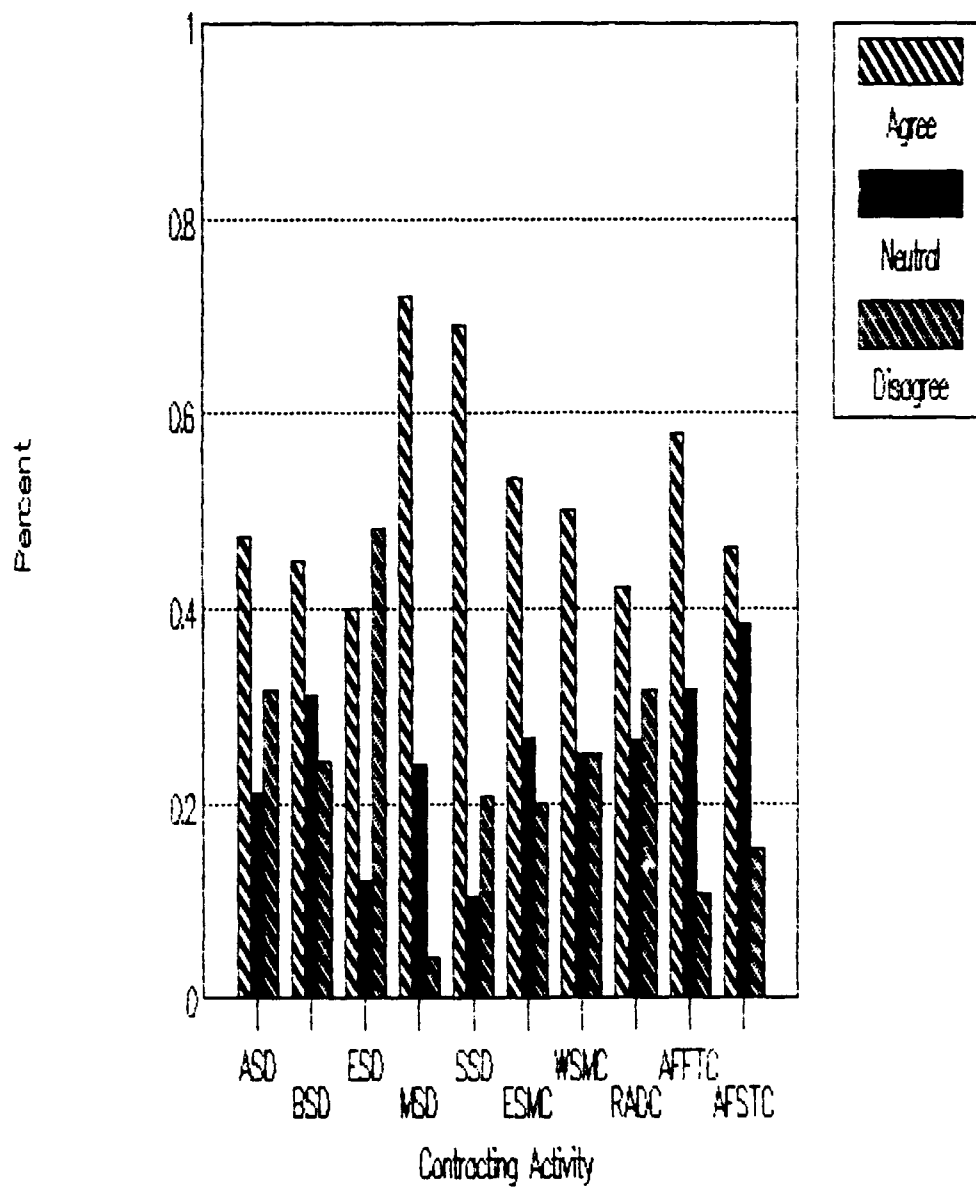


Figure 37. Training Useful by Buying Activity.

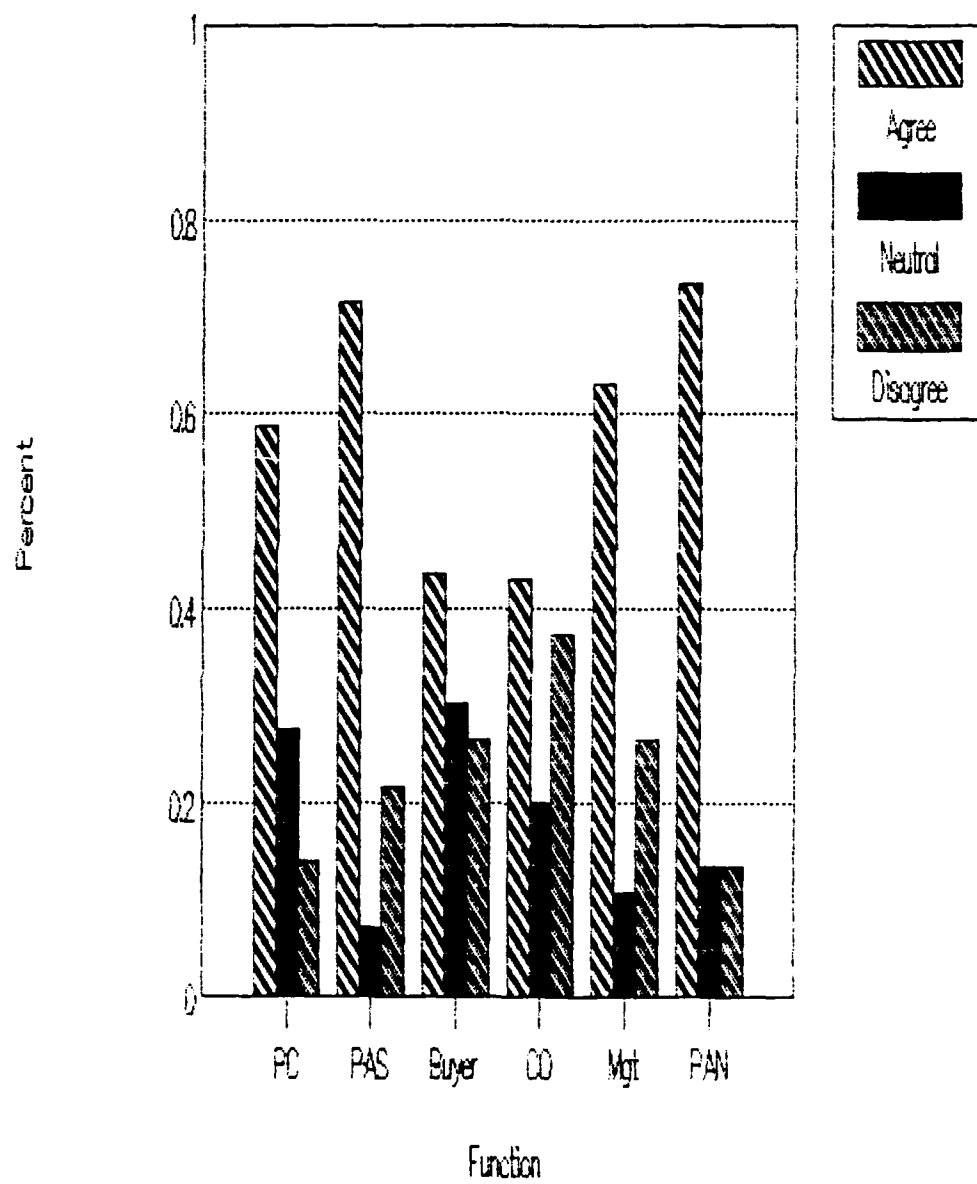


Figure 38. Training Useful by Function.

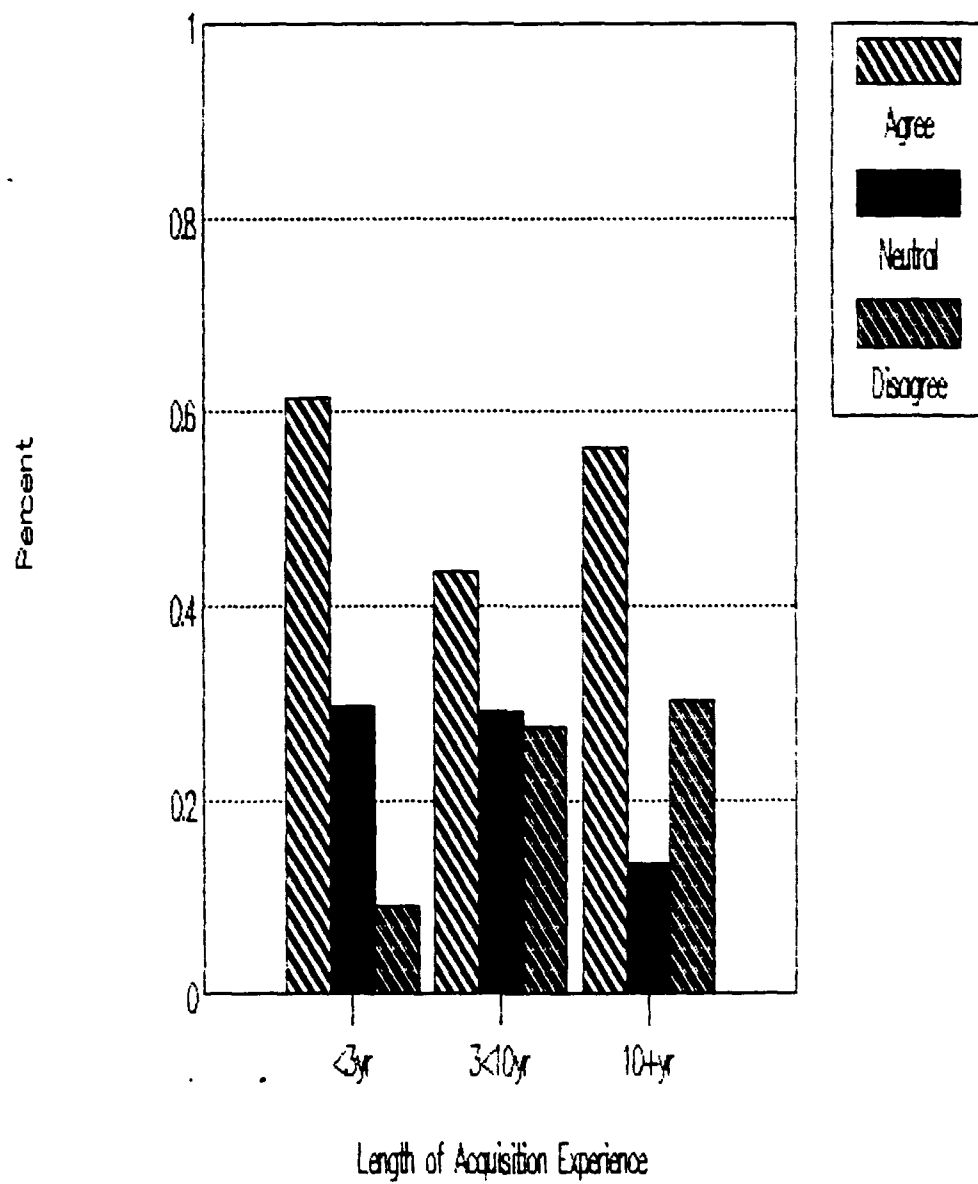


Figure 39. Training Useful by Experience.

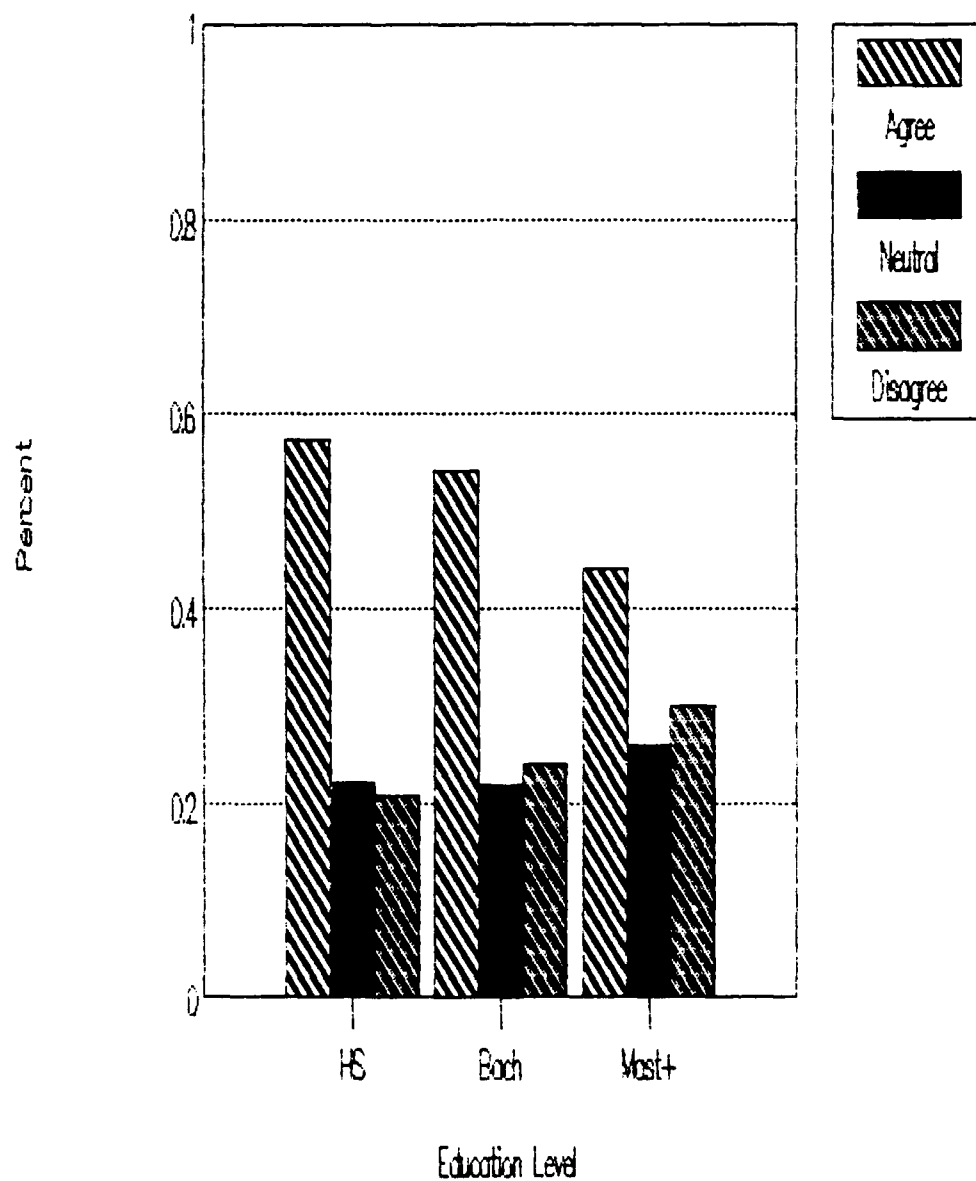


Figure 40. Training Useful by Education.

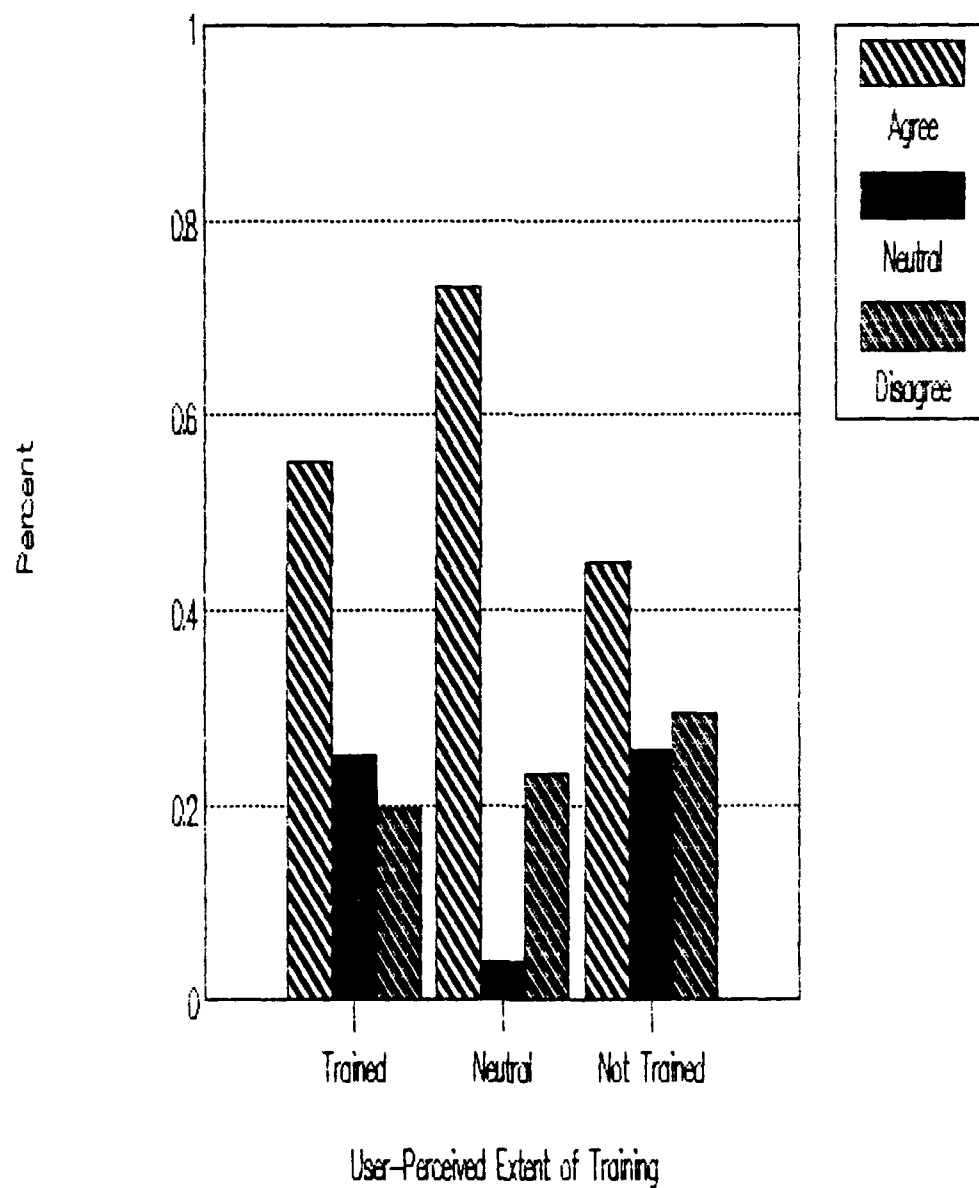


Figure 41. Training Useful by Perceived Training.

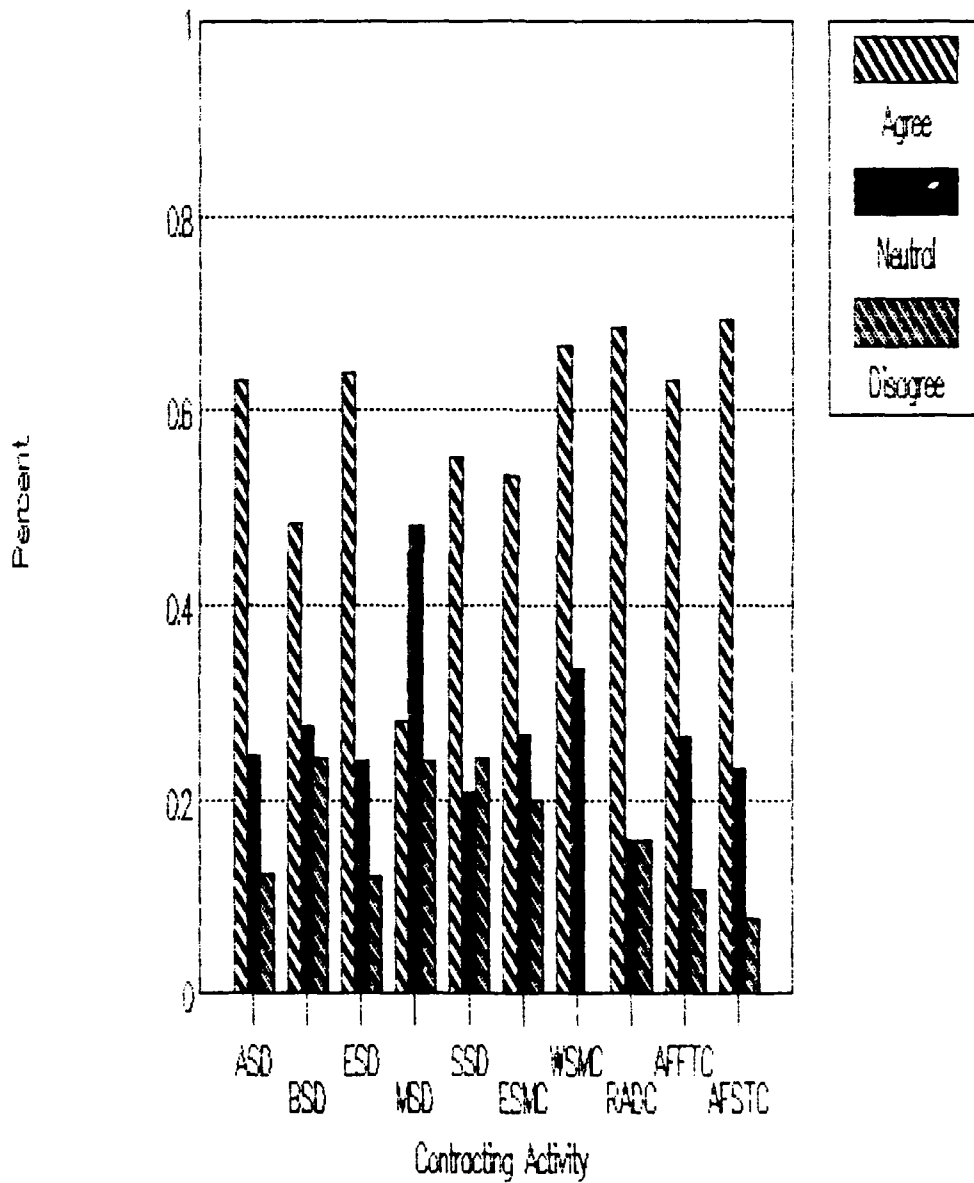


Figure 42. PMS More Useful to Mgt by Buying Activity.

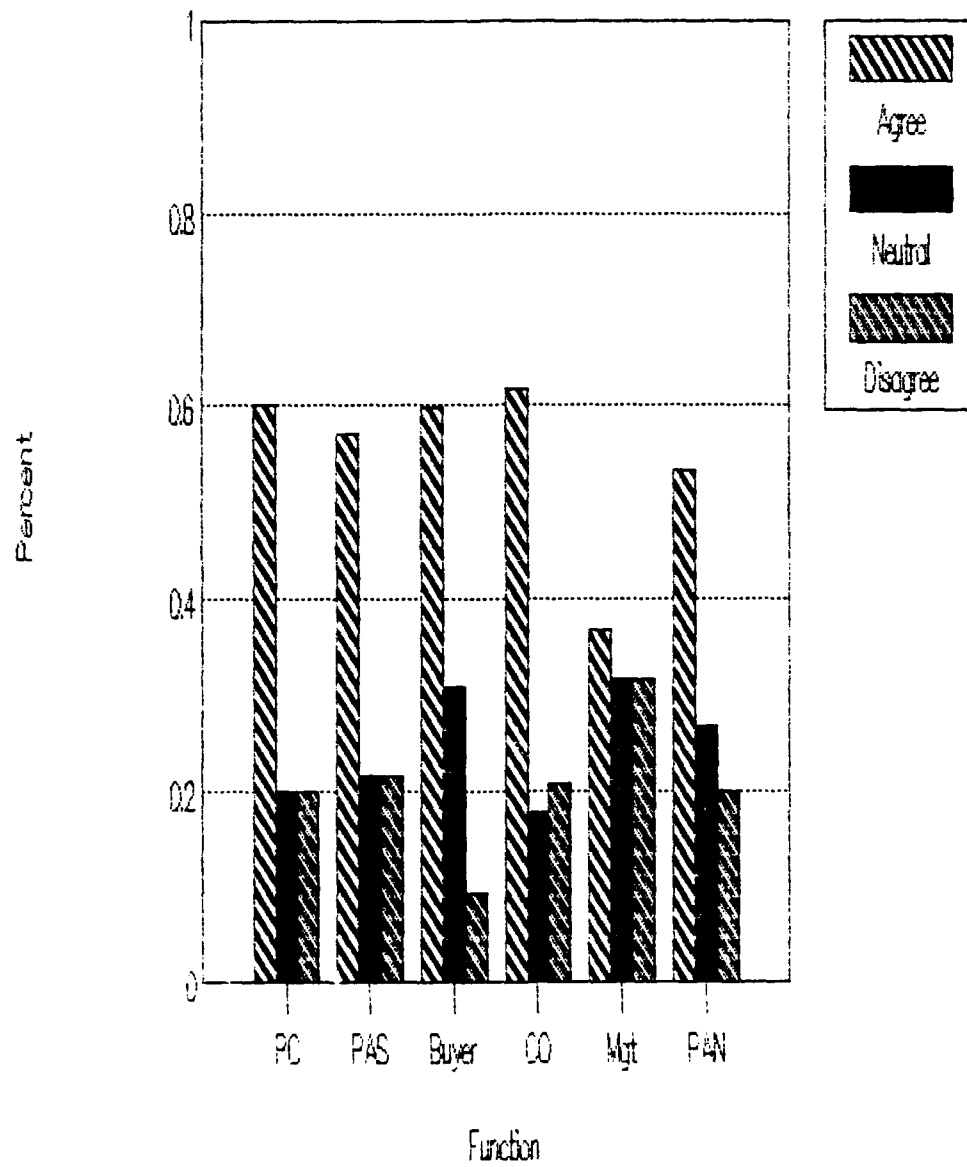


Figure 43. PMS More Useful to Mgt by Function.

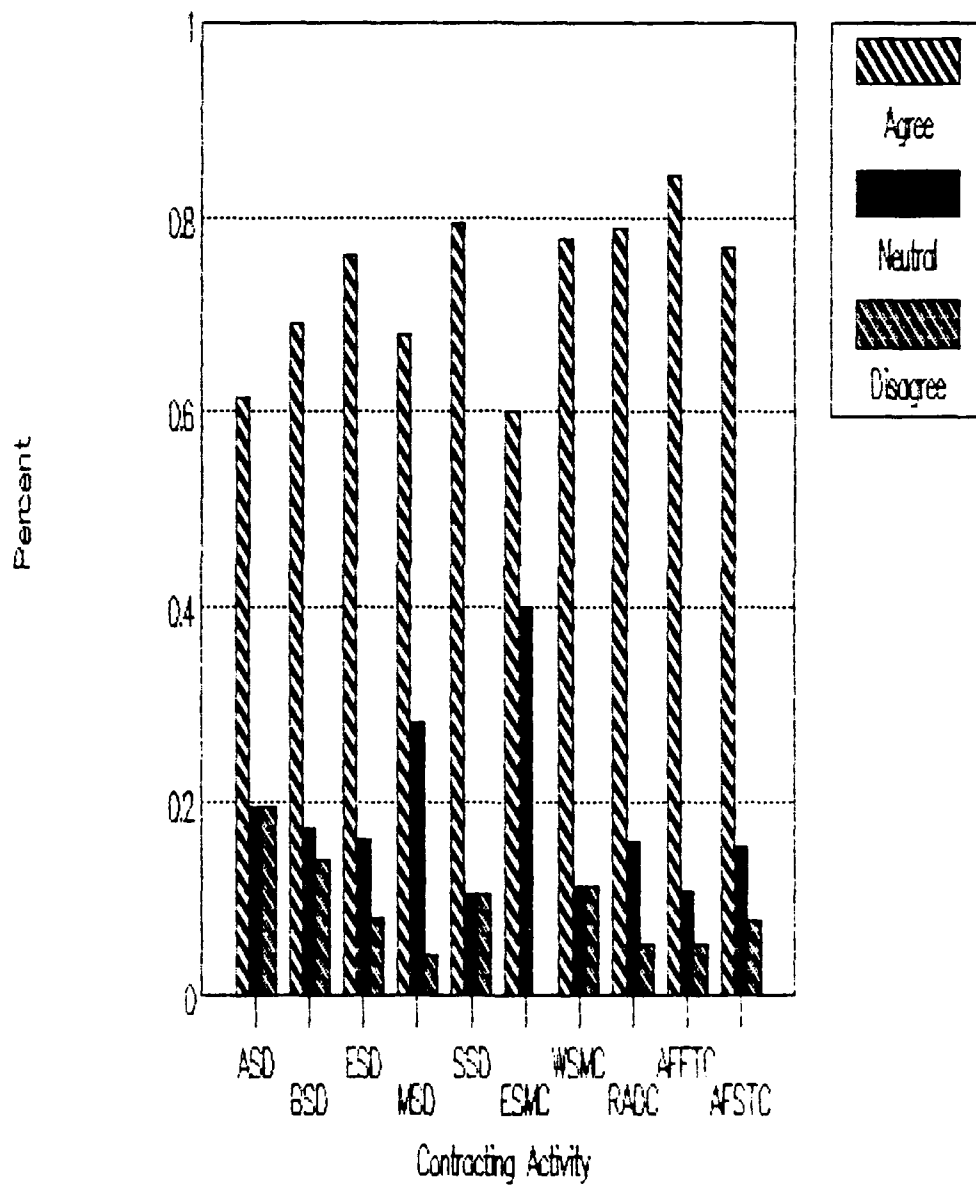


Figure 44. Summary Needed by Buying Activity.

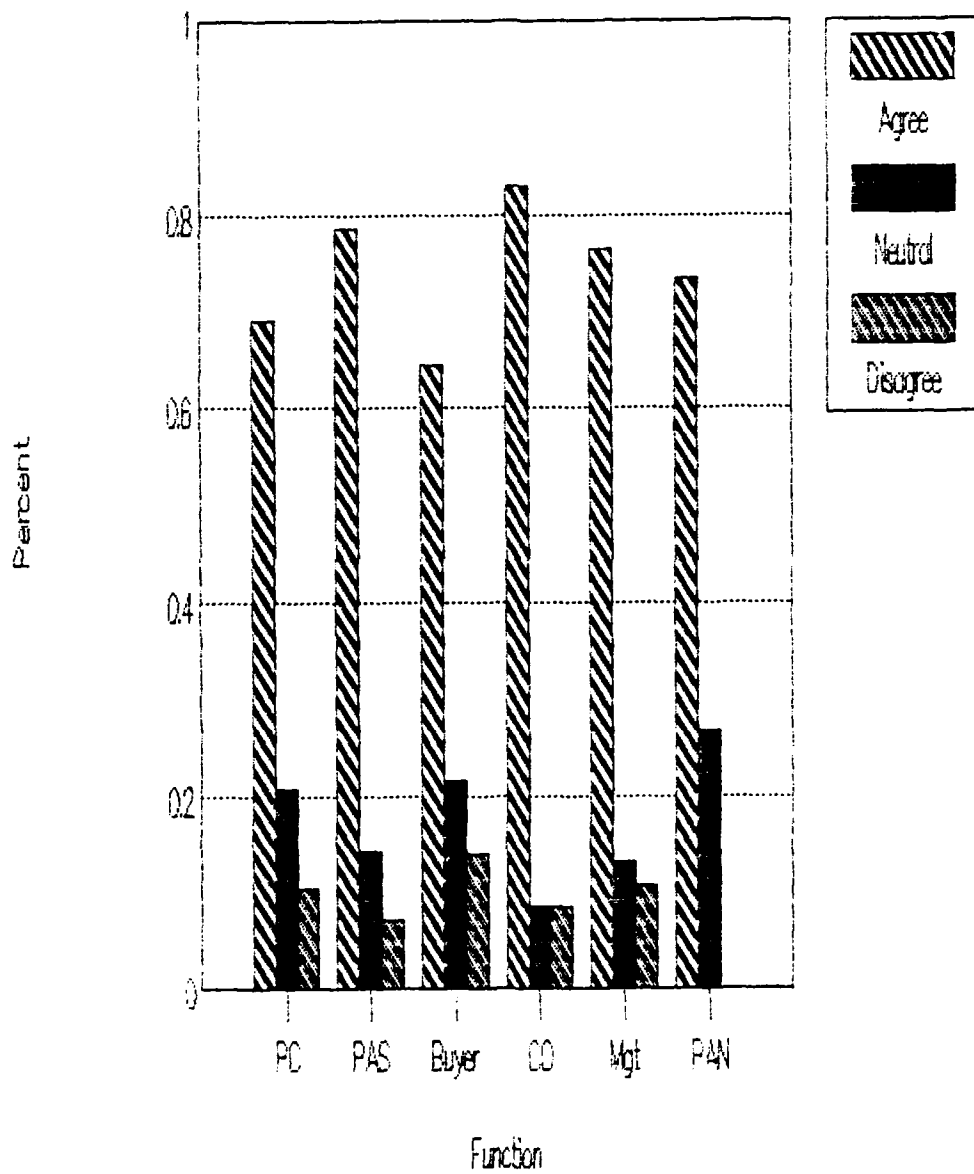


Figure 45. Summary Needed by Function.

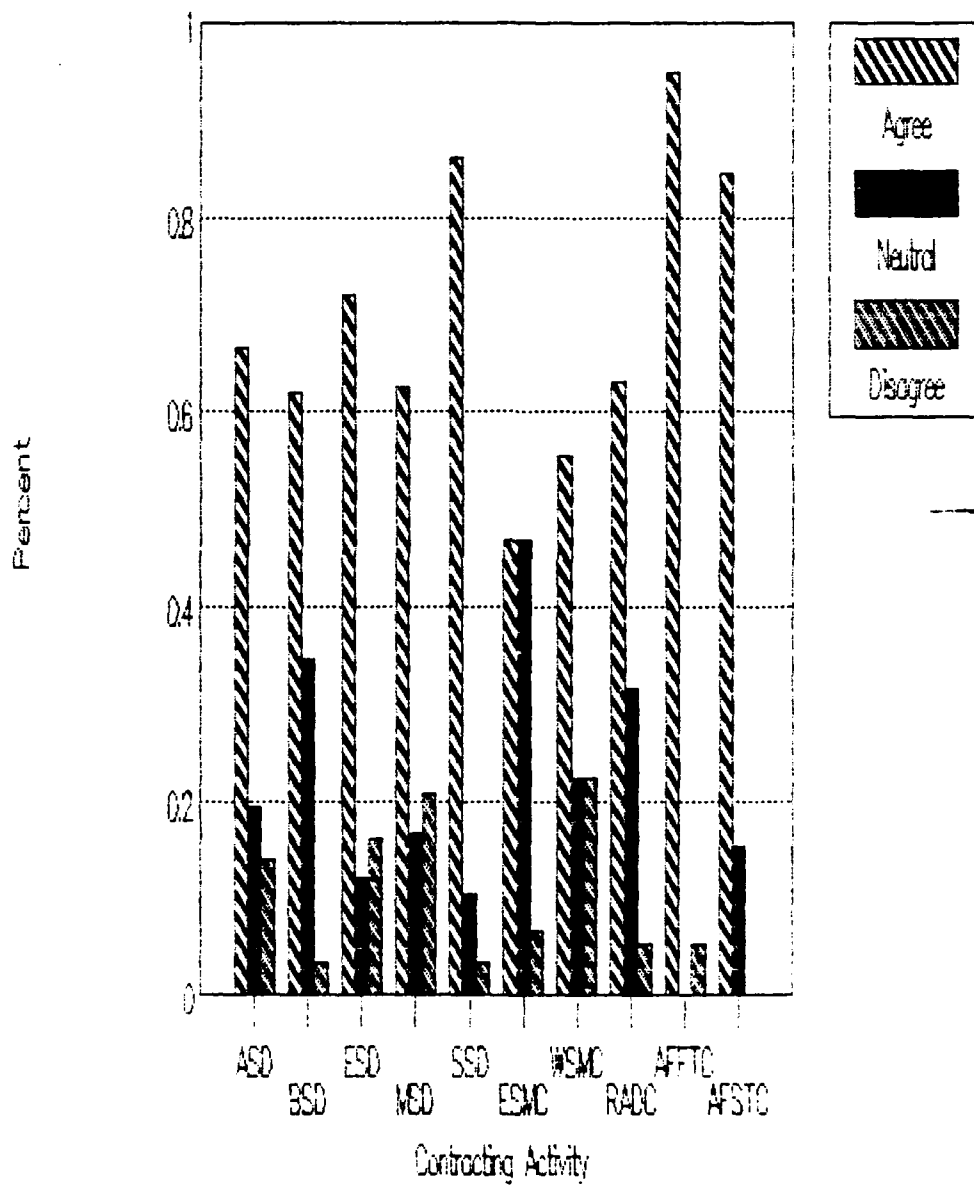


Figure 46. More Remarks Needed by Buying Activity.

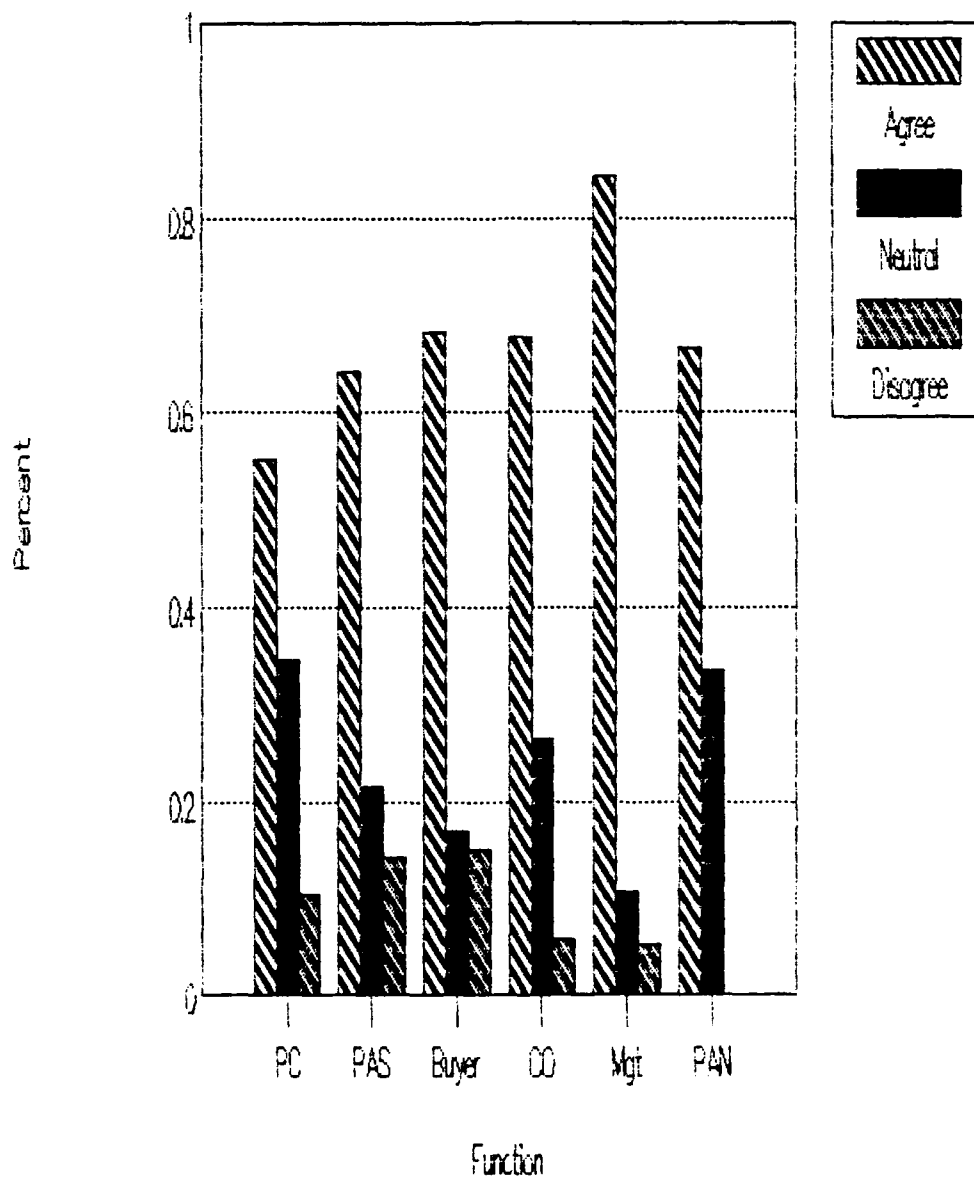


Figure 47. More Remarks Needed by Function.

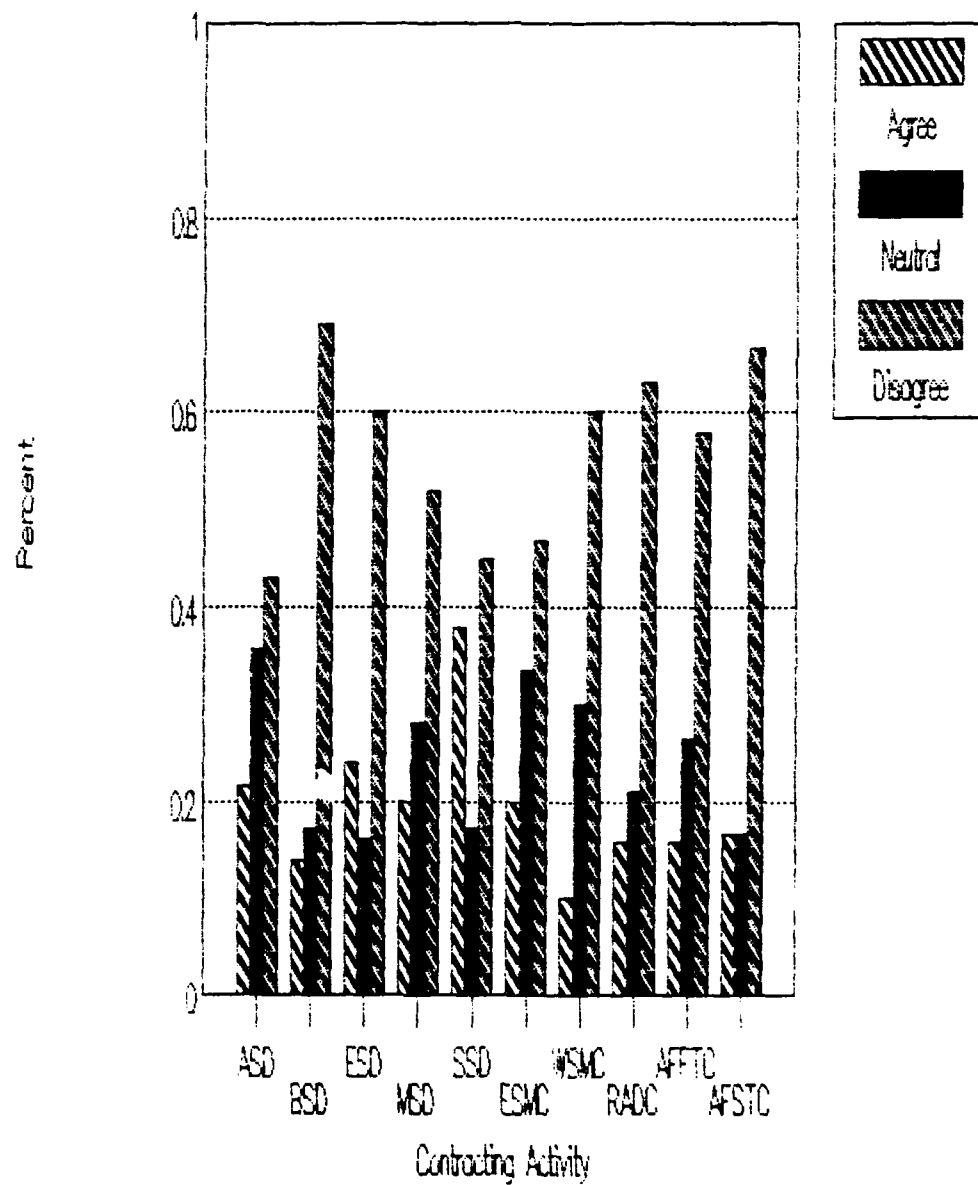


Figure 48. Mgt Uses PMS by Buying Activity.

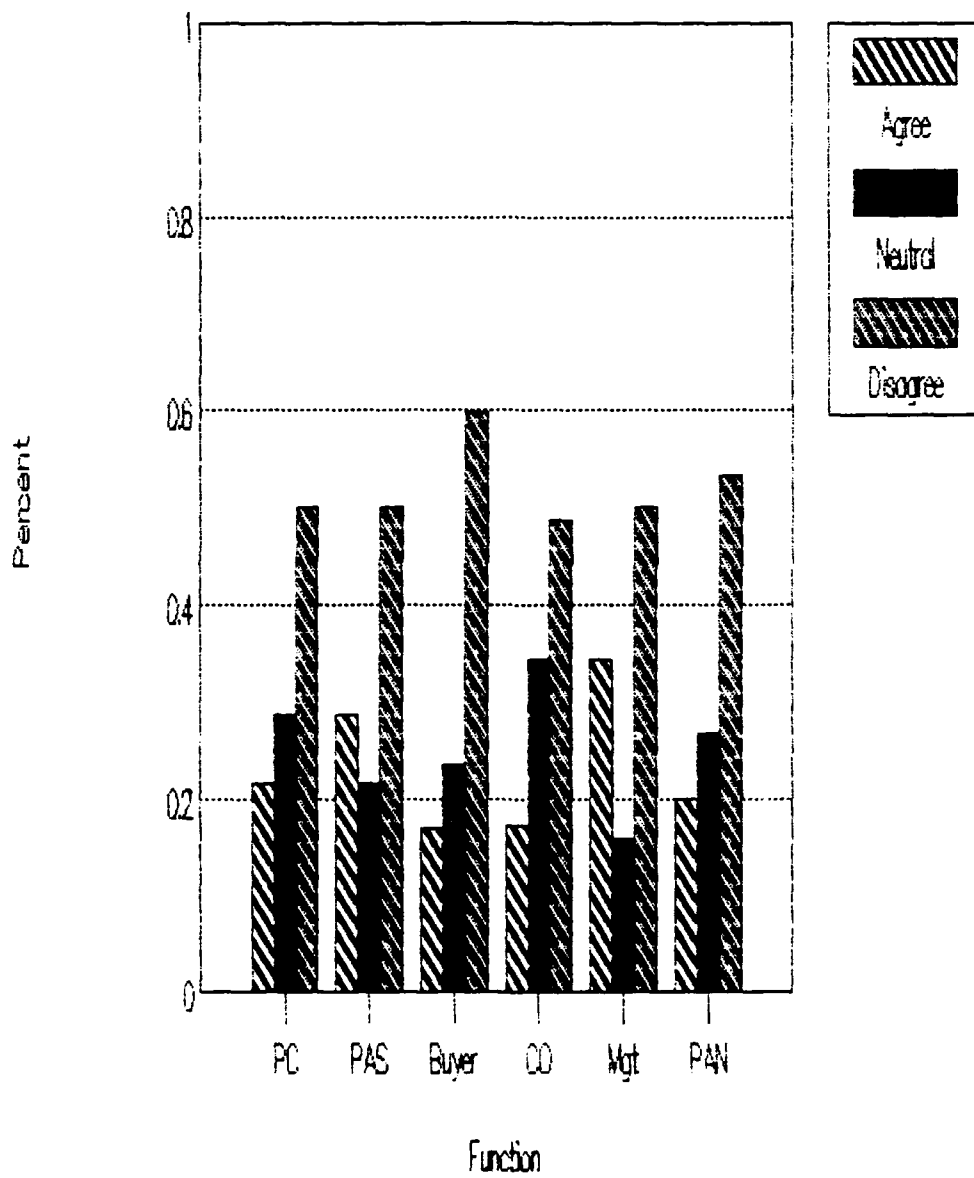


Figure 49. Mgt Uses PMS by Function.

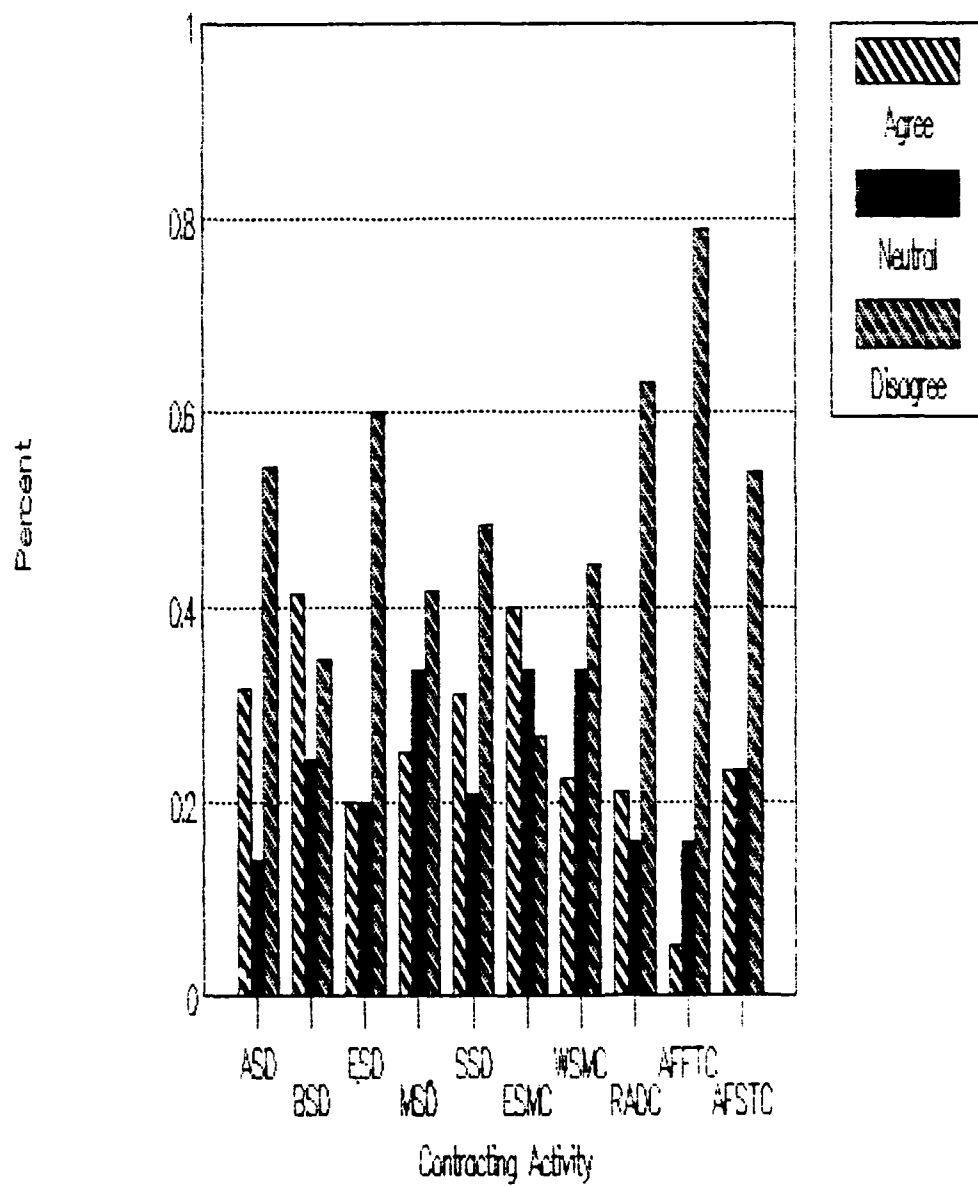


Figure 50. Lead-time Realistic by Buying Activity.

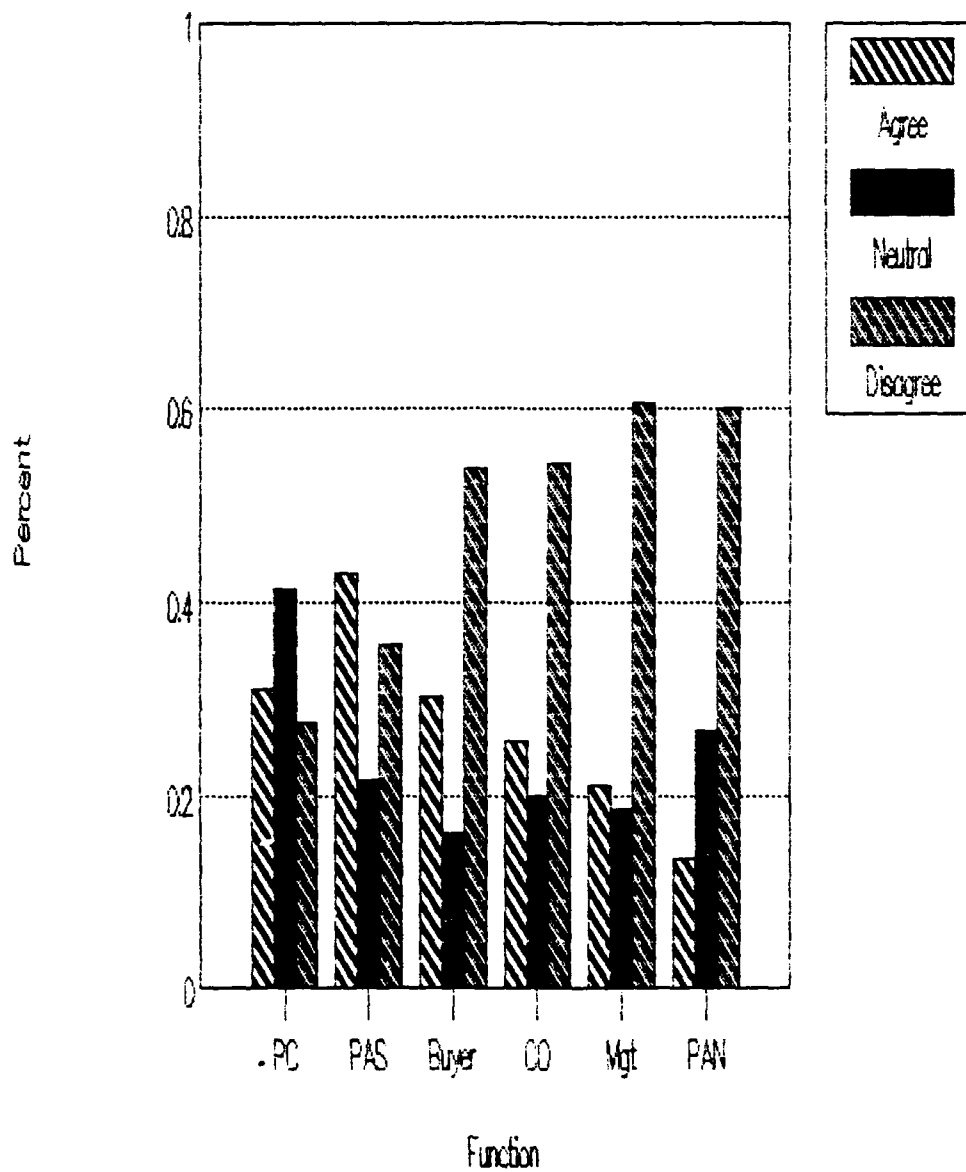


Figure 51. Lead-time Realistic by Function.

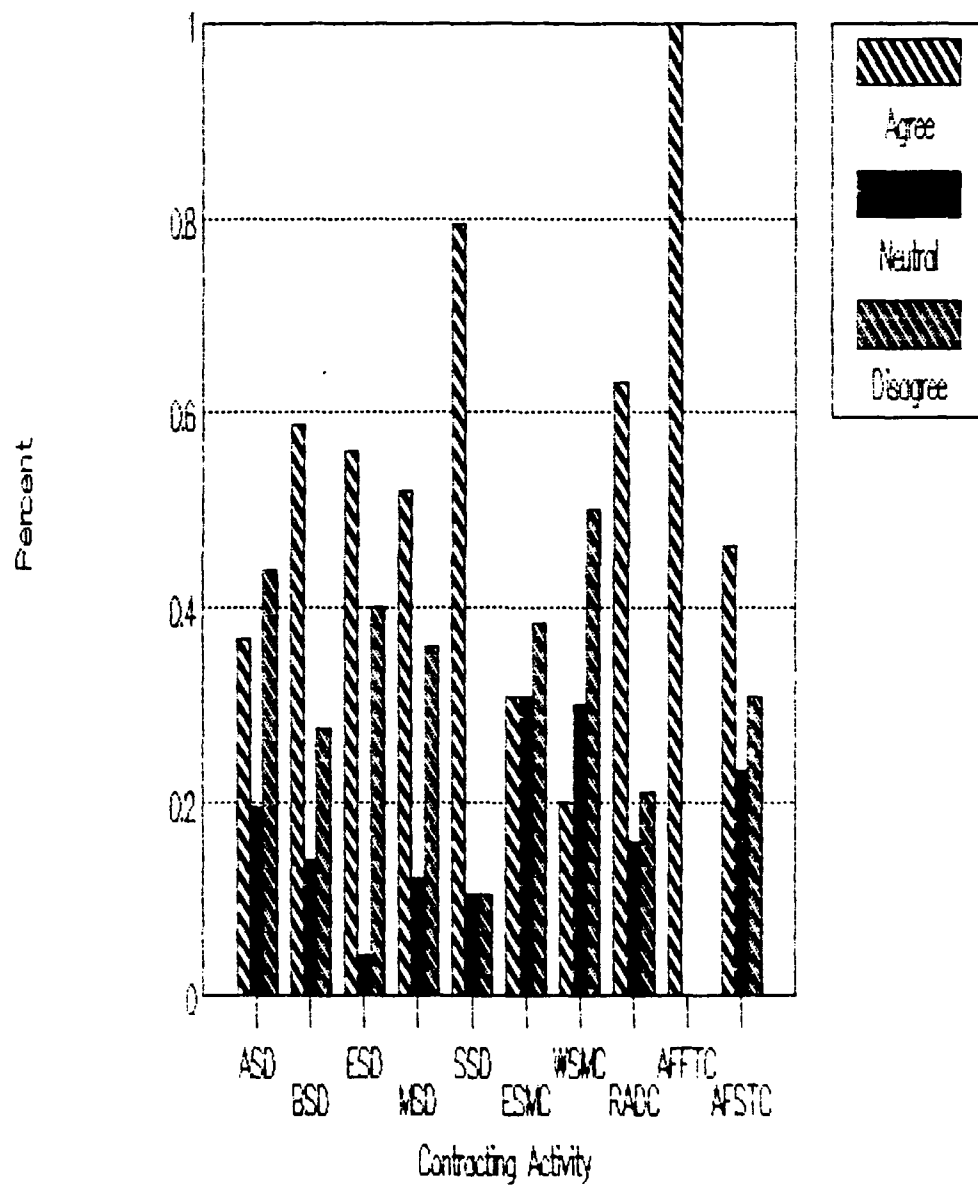


Figure 52. Buyers Input PMS Data by Buying Activity.

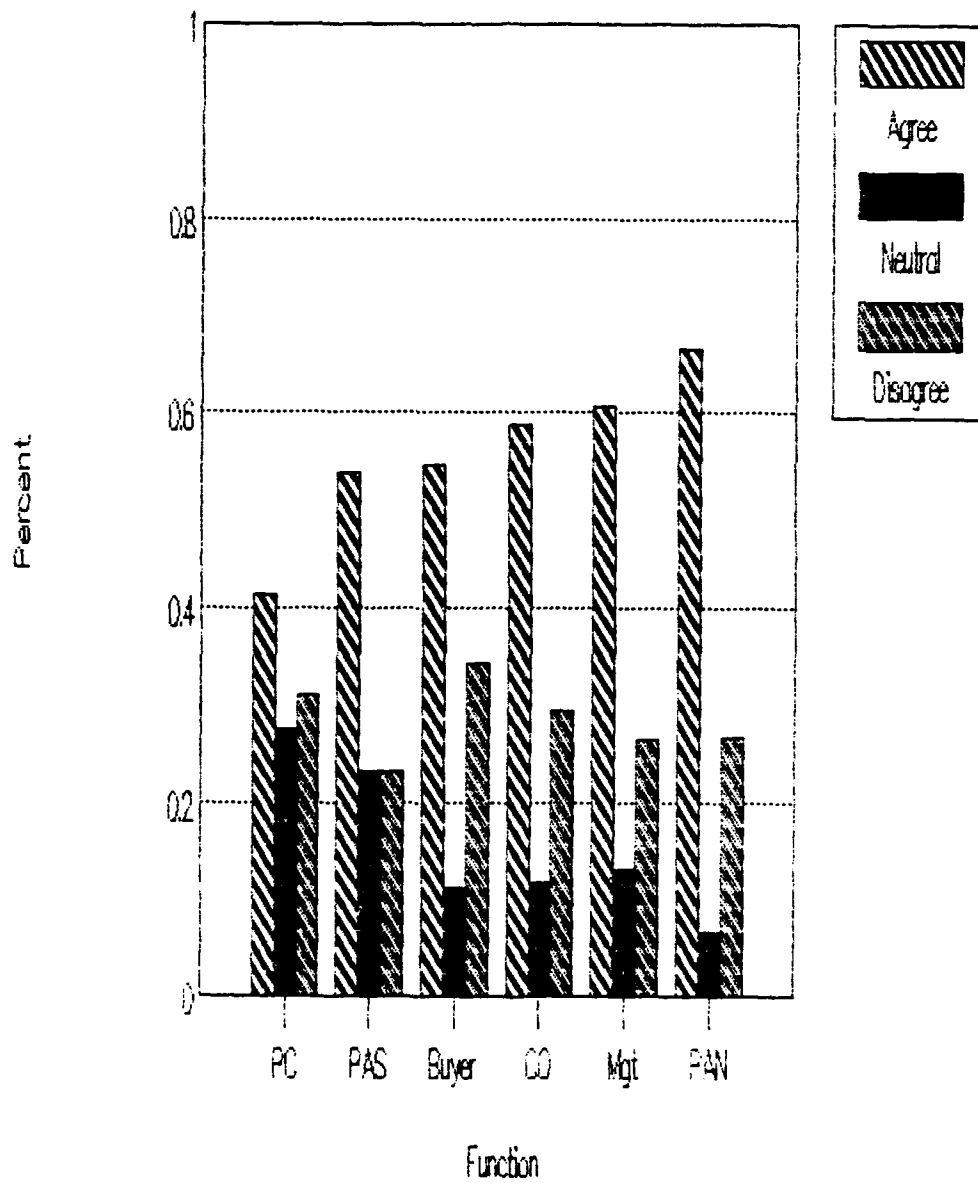


Figure 53. Buyers Input PMS Data by Function.

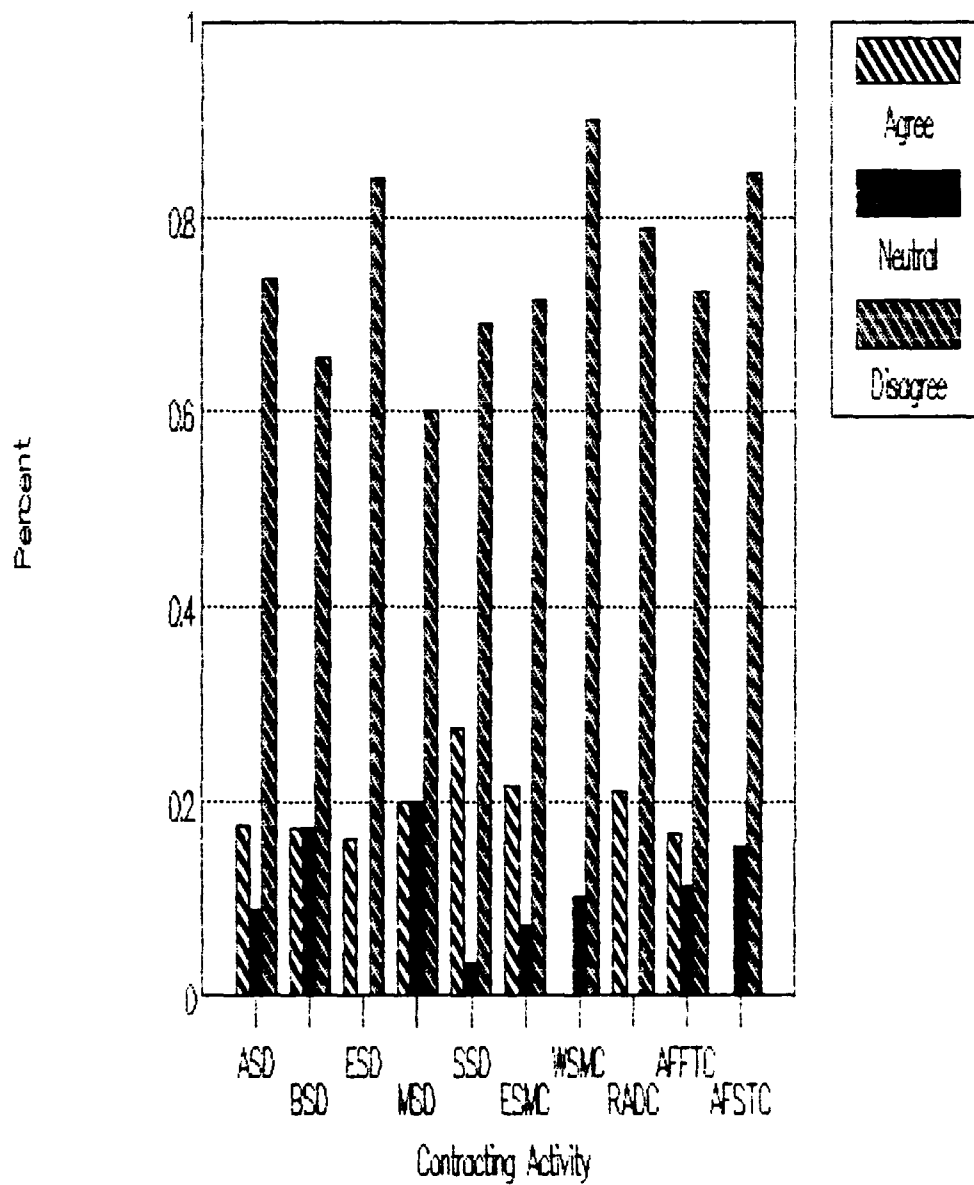


Figure 54. Complete Picture by Buying Activity.

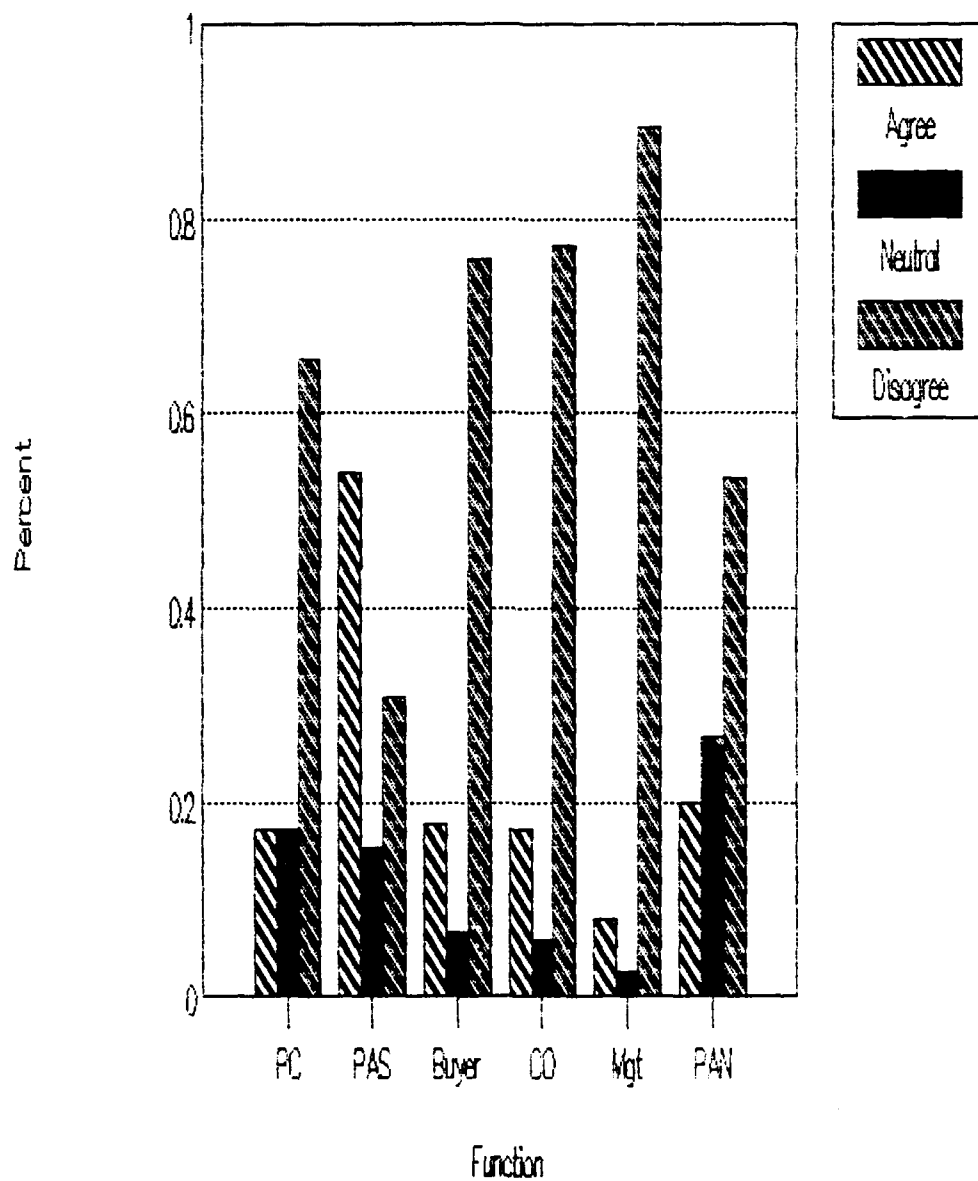


Figure 55. Complete Picture by Function.

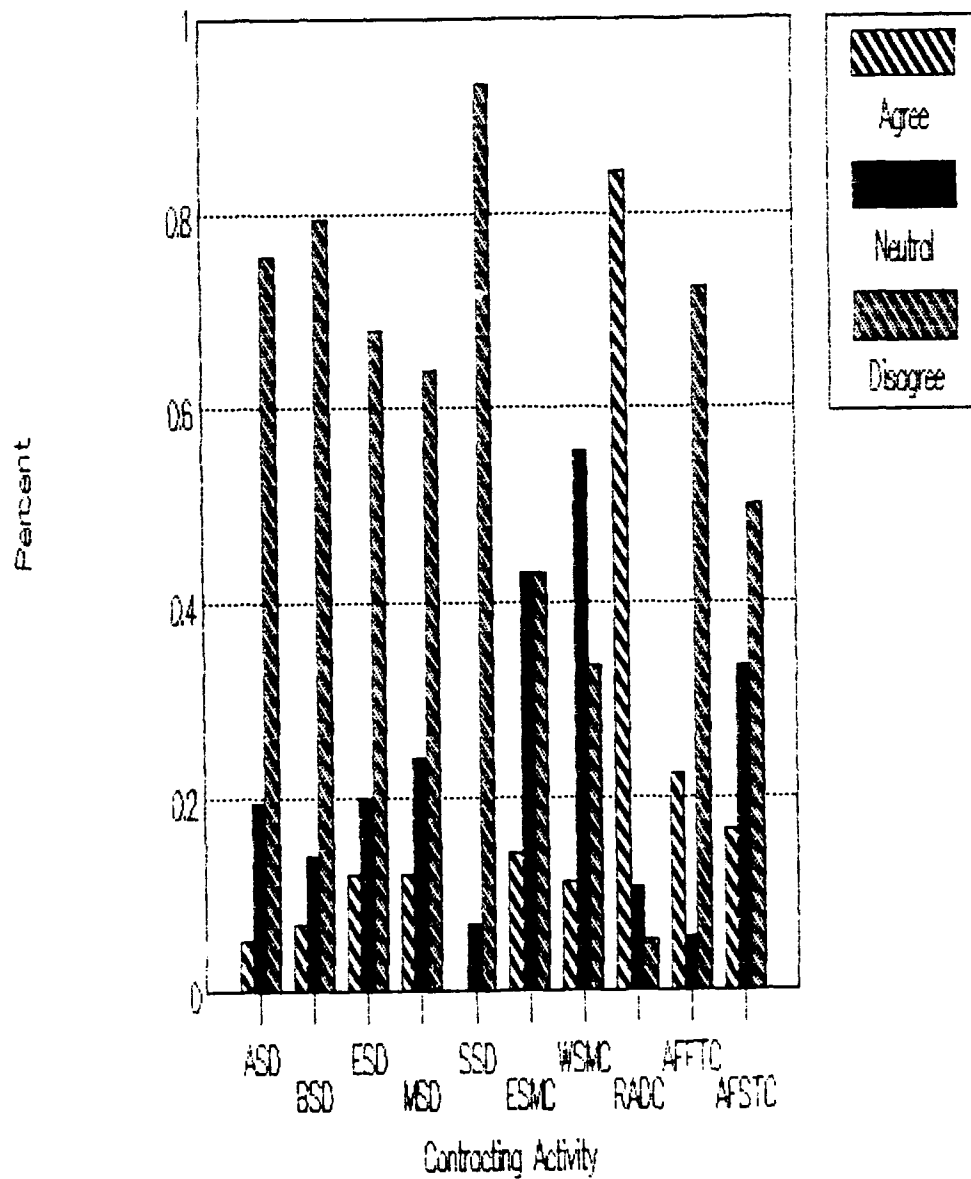


Figure 56. PMS not Primary by Buying Activity.

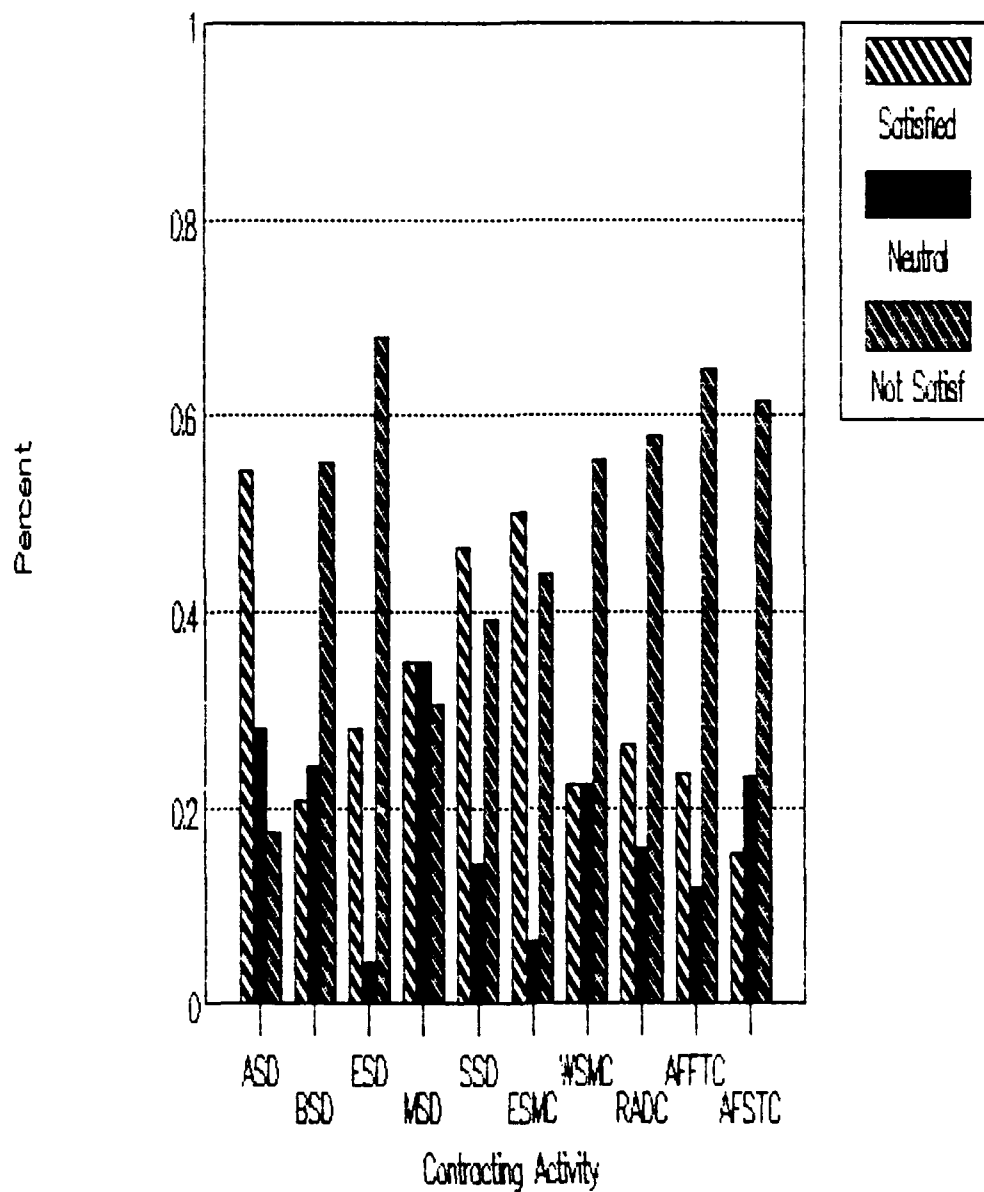


Figure 57. Satisfied with AMIS by Buying Activity.

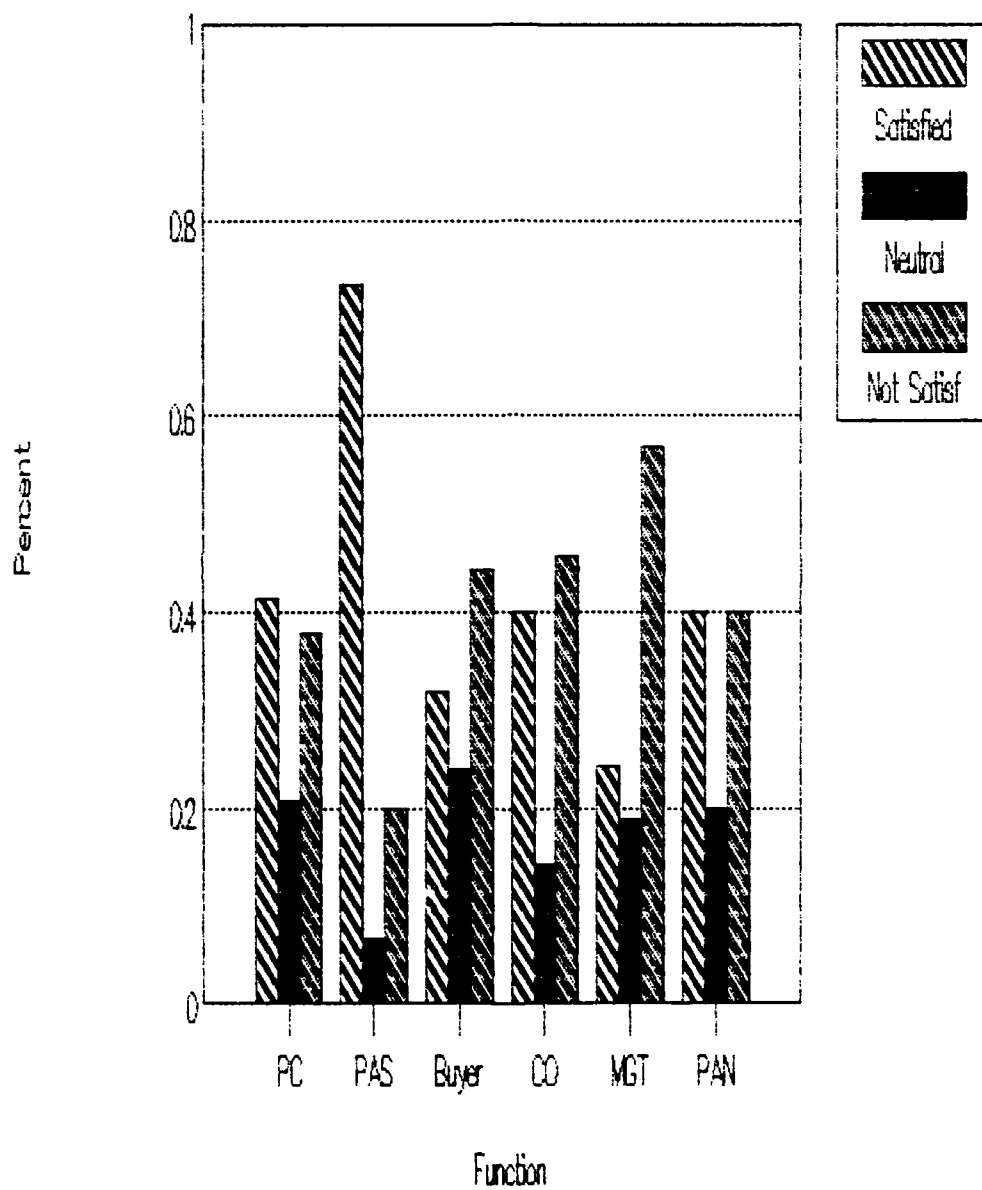


Figure 58. Satisfied with AMIS by Function.

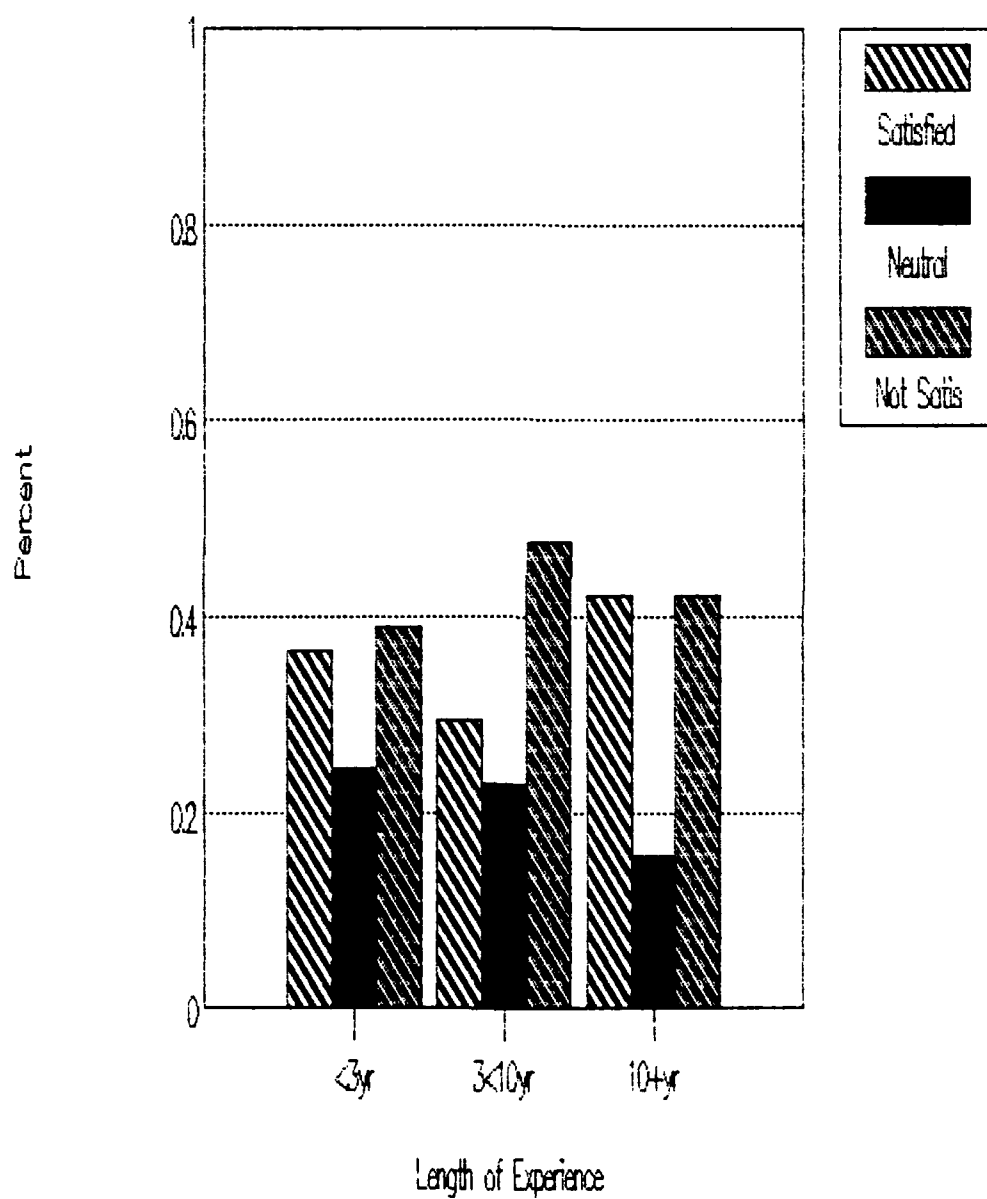


Figure 59. Satisfied with AMIS by Experience.

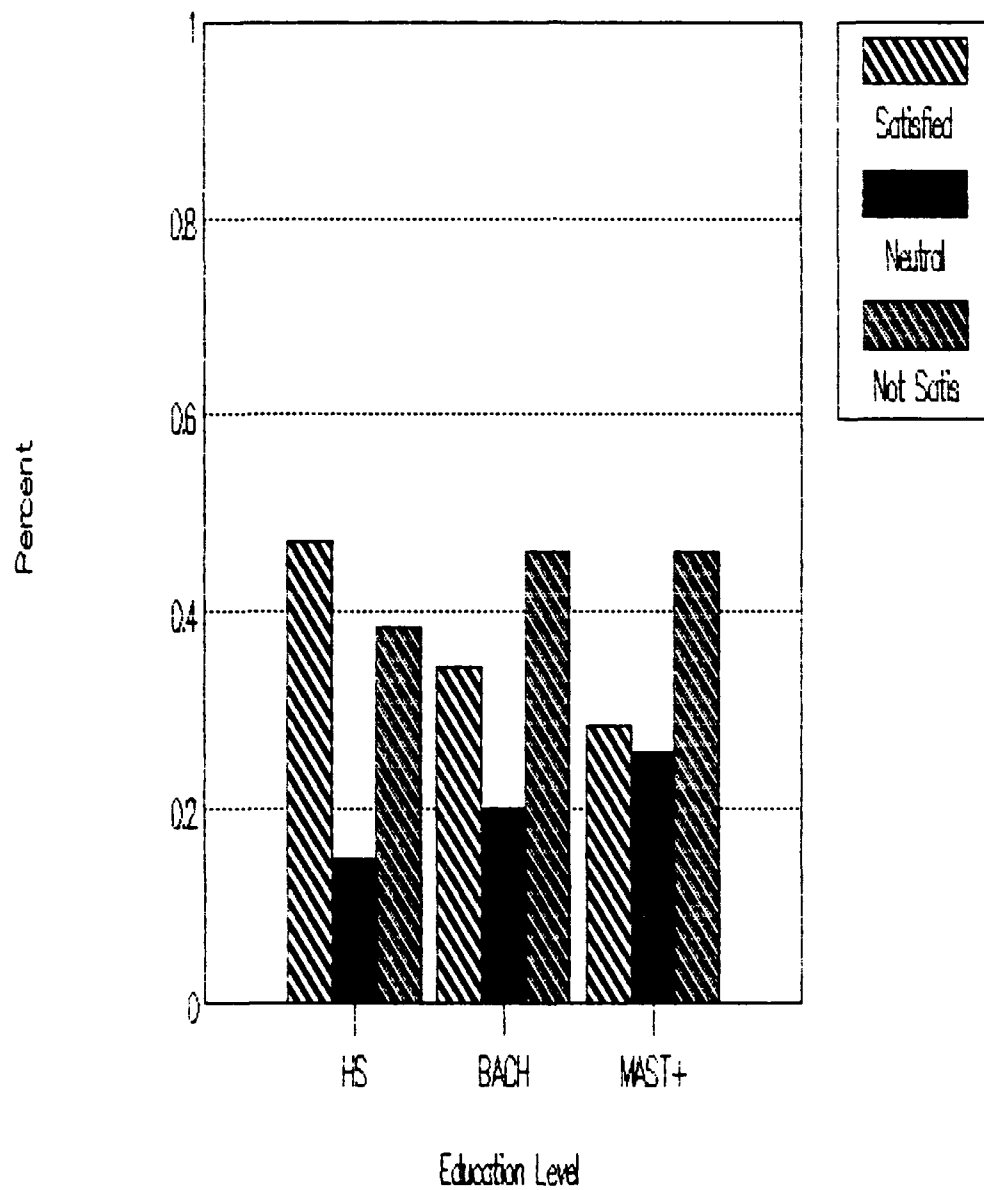


Figure 60. Satisfied with AMIS by Education.

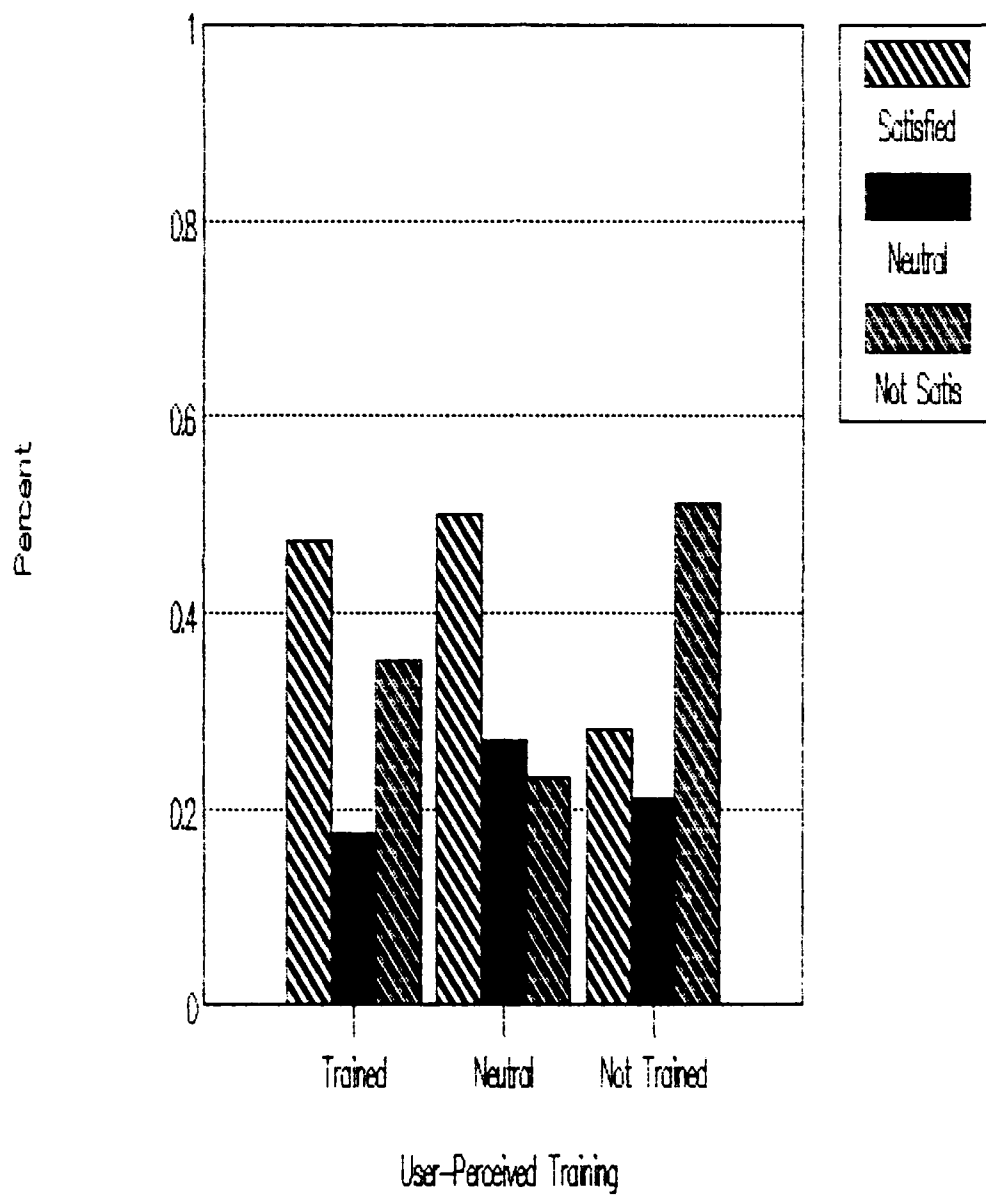


Figure 61. Satisfied with AMIS by Training.

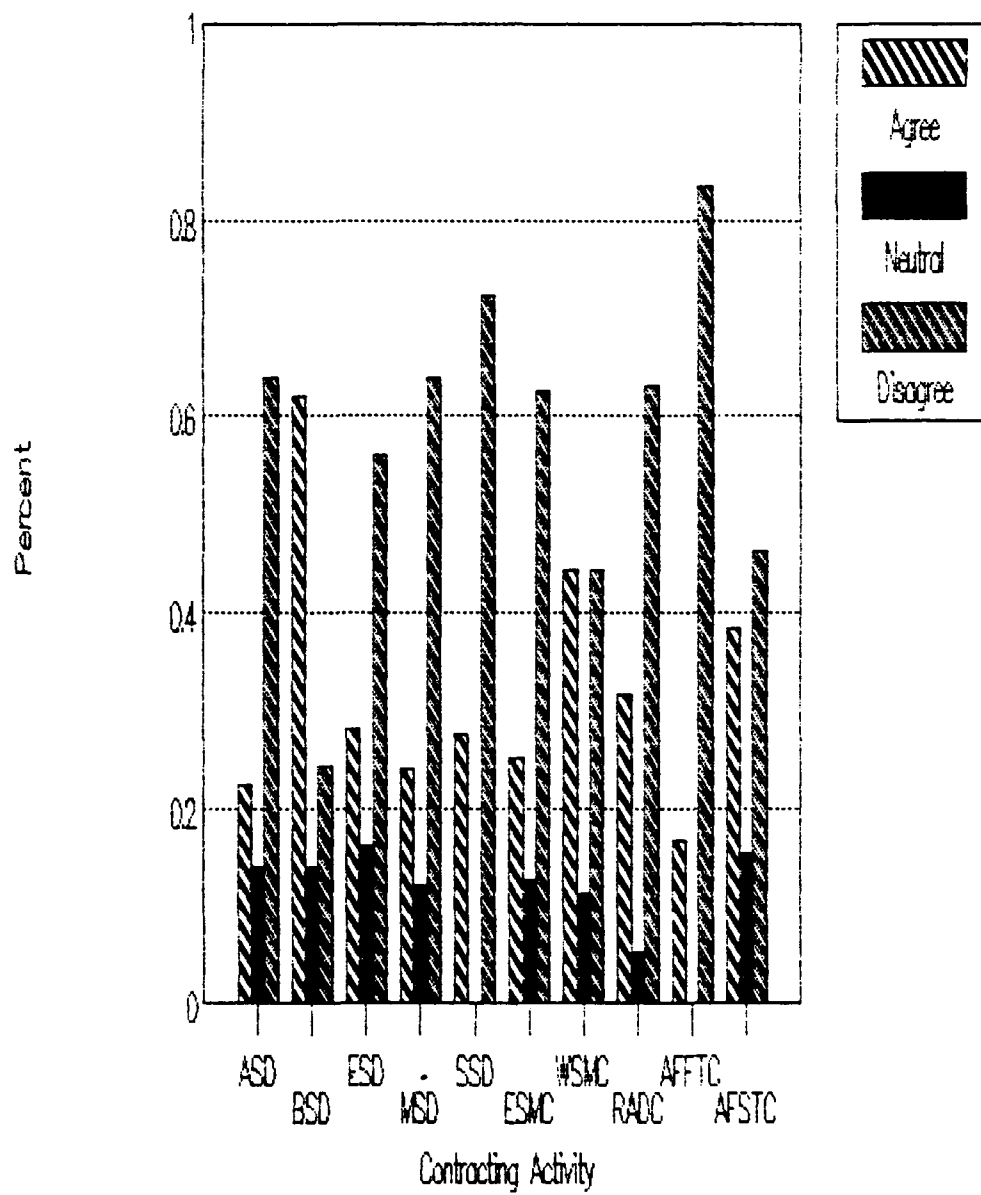


Figure 62. Adequate Training by Buying Activity.

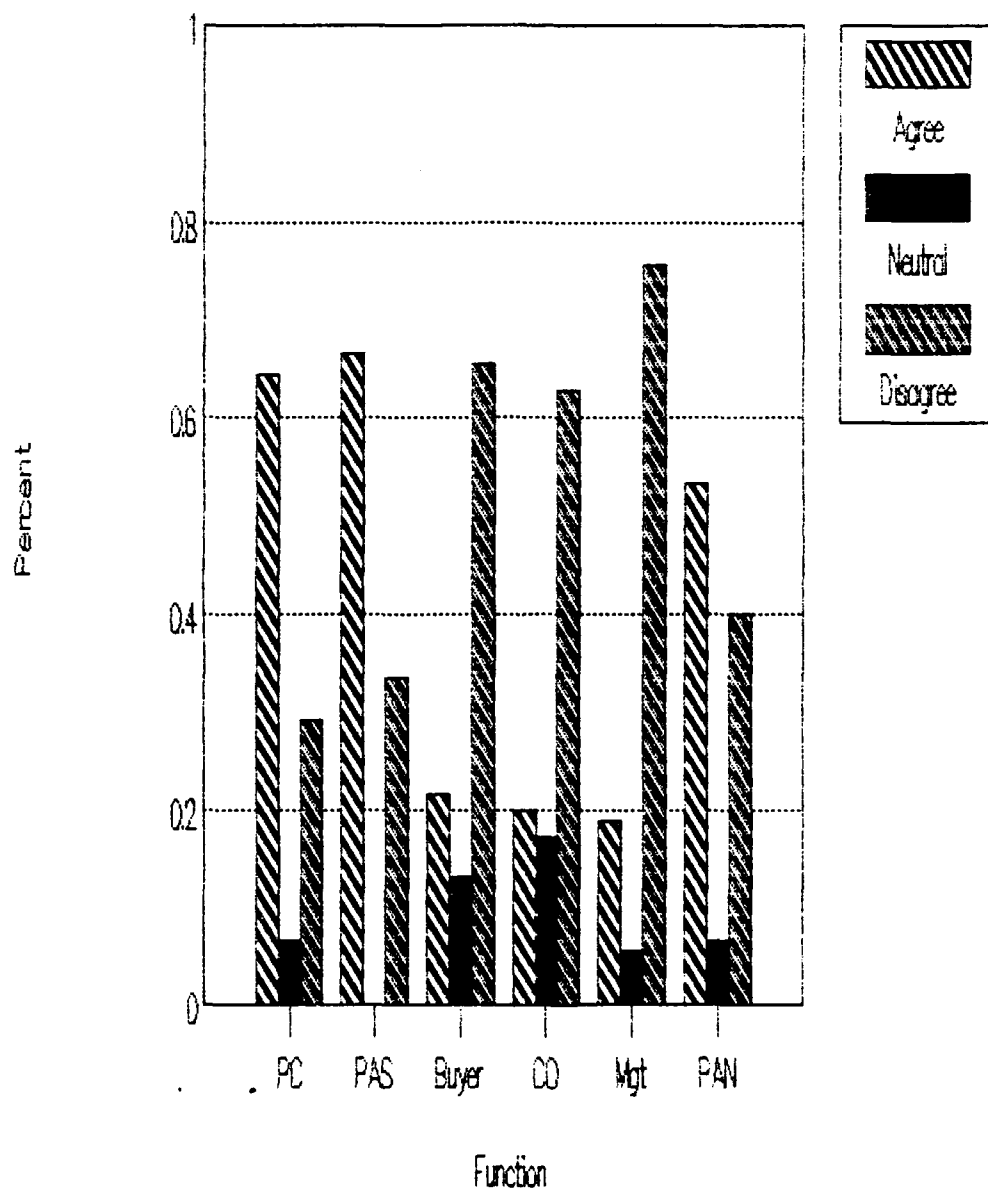


Figure 63. Adequate Training by Function.

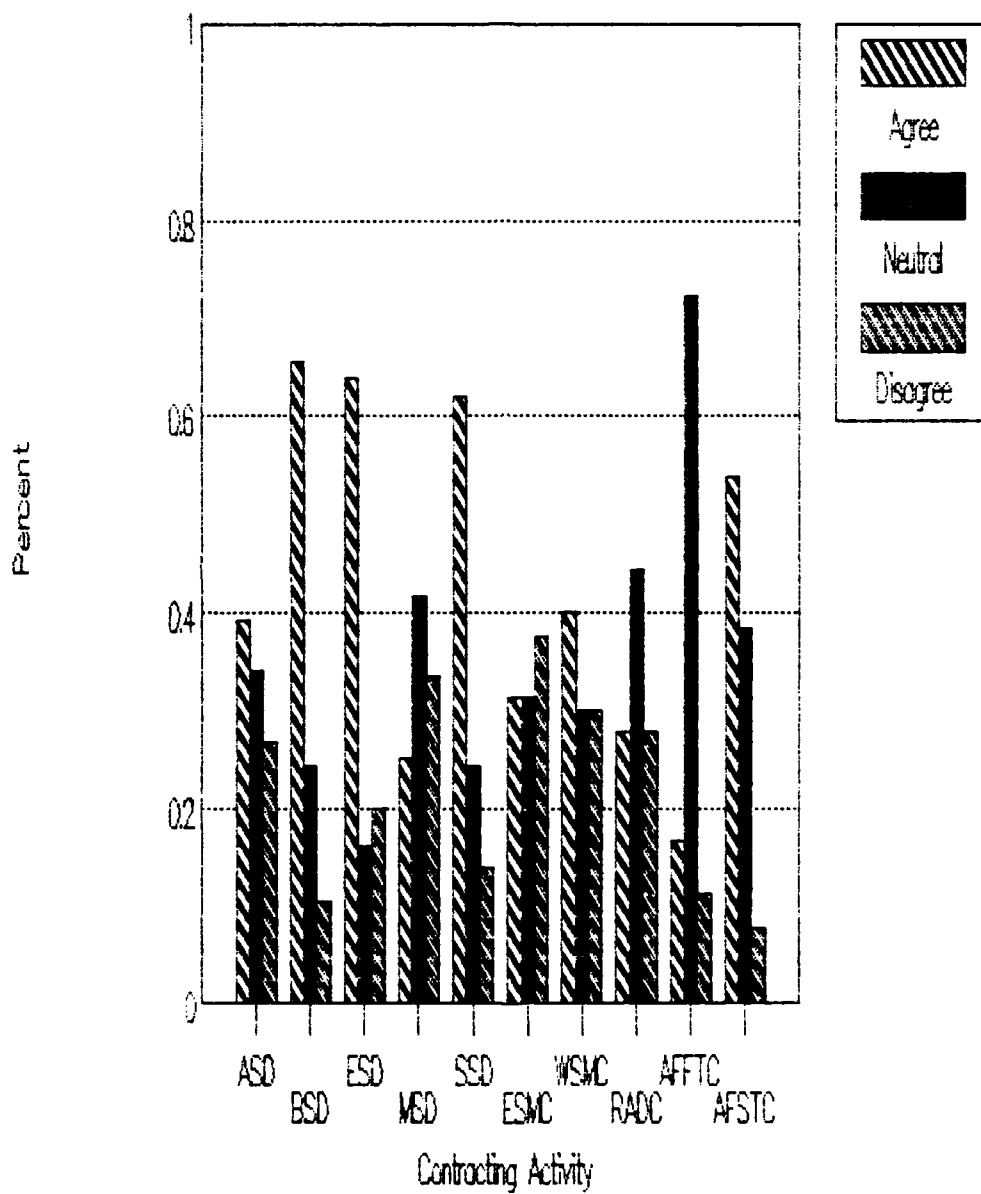


Figure 64. Wait Too Long by Buying Activity.

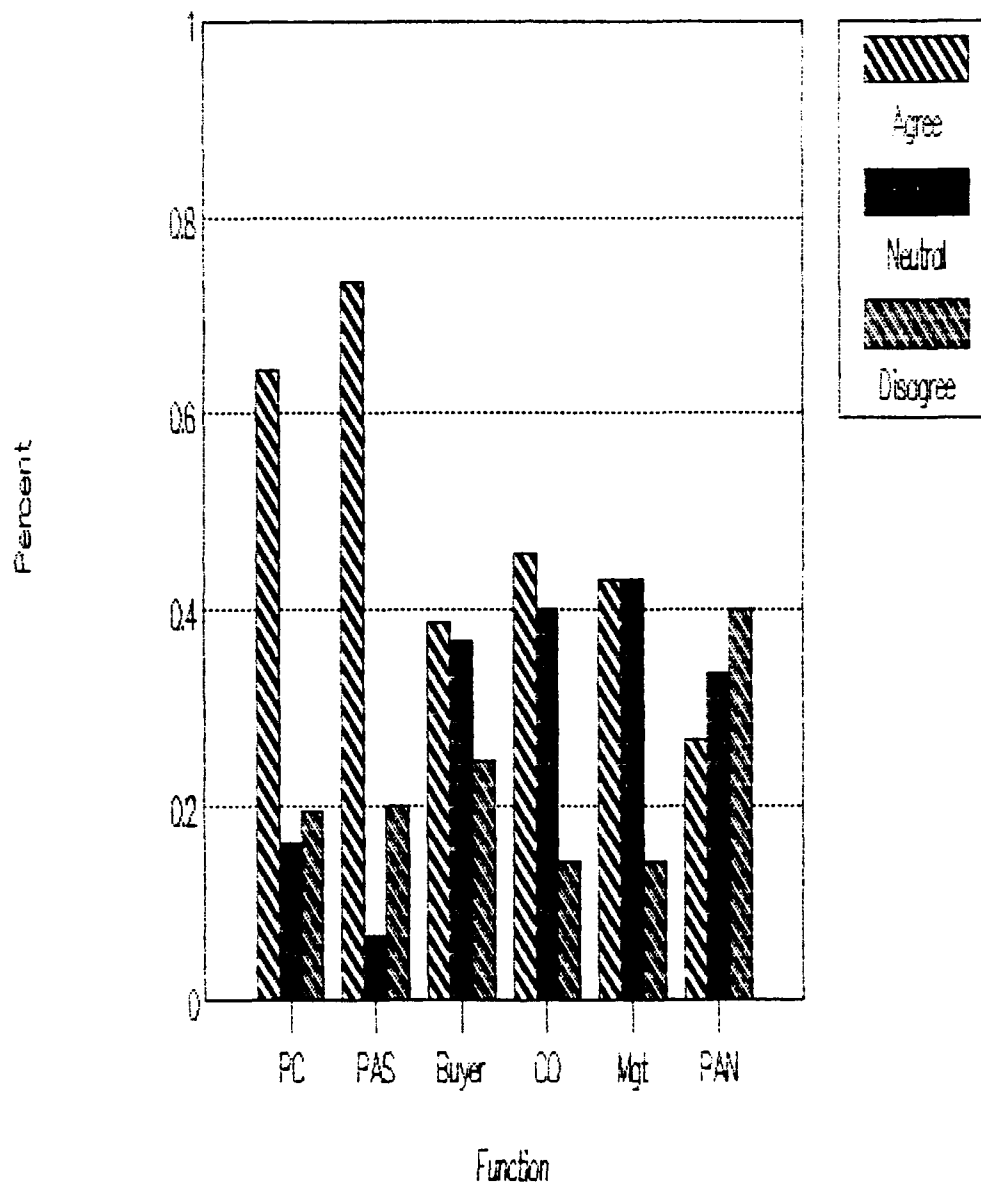


Figure 65. Wait Too Long by Function.

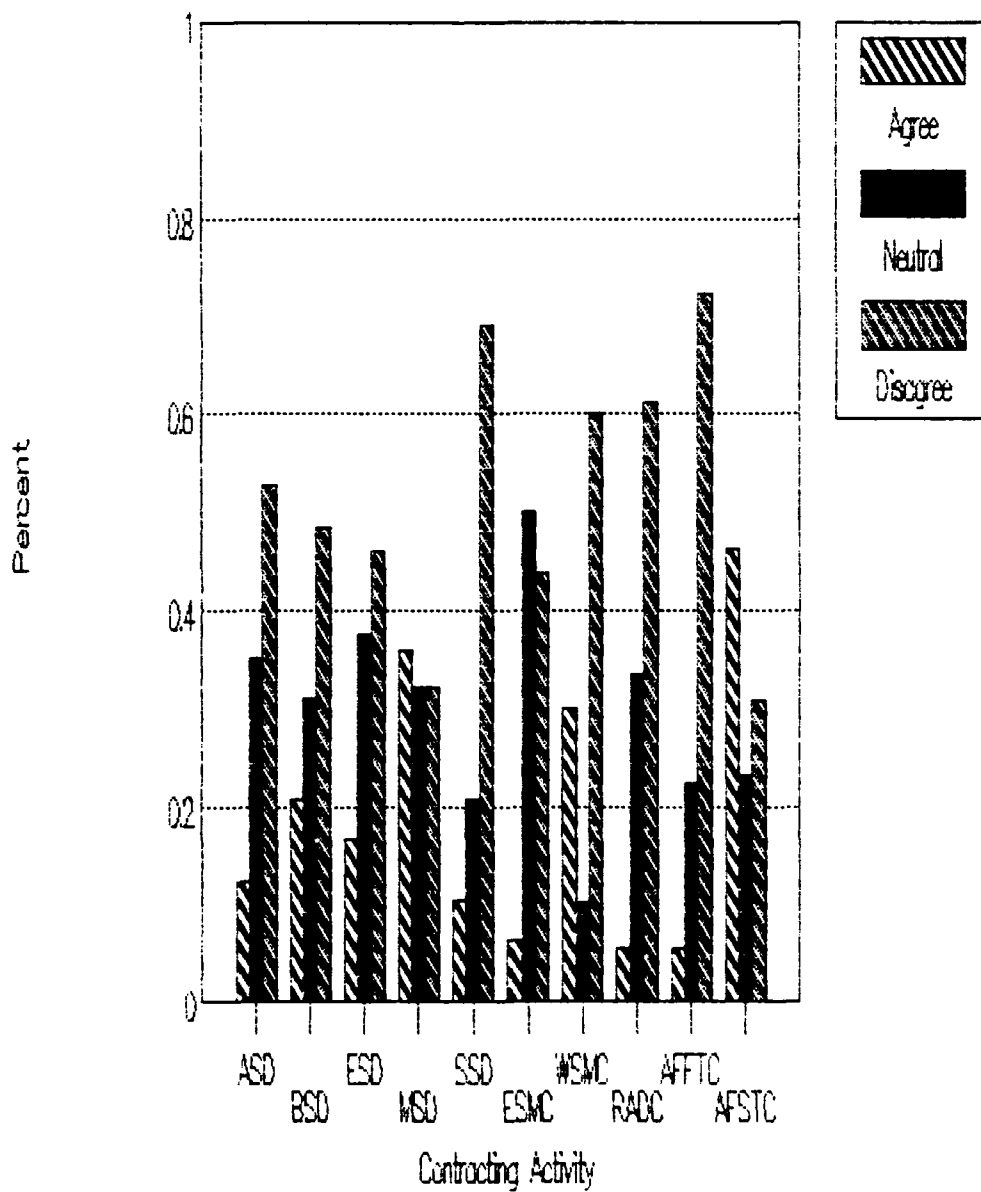


Figure 66. Notice Sufficient by Buying Activity.

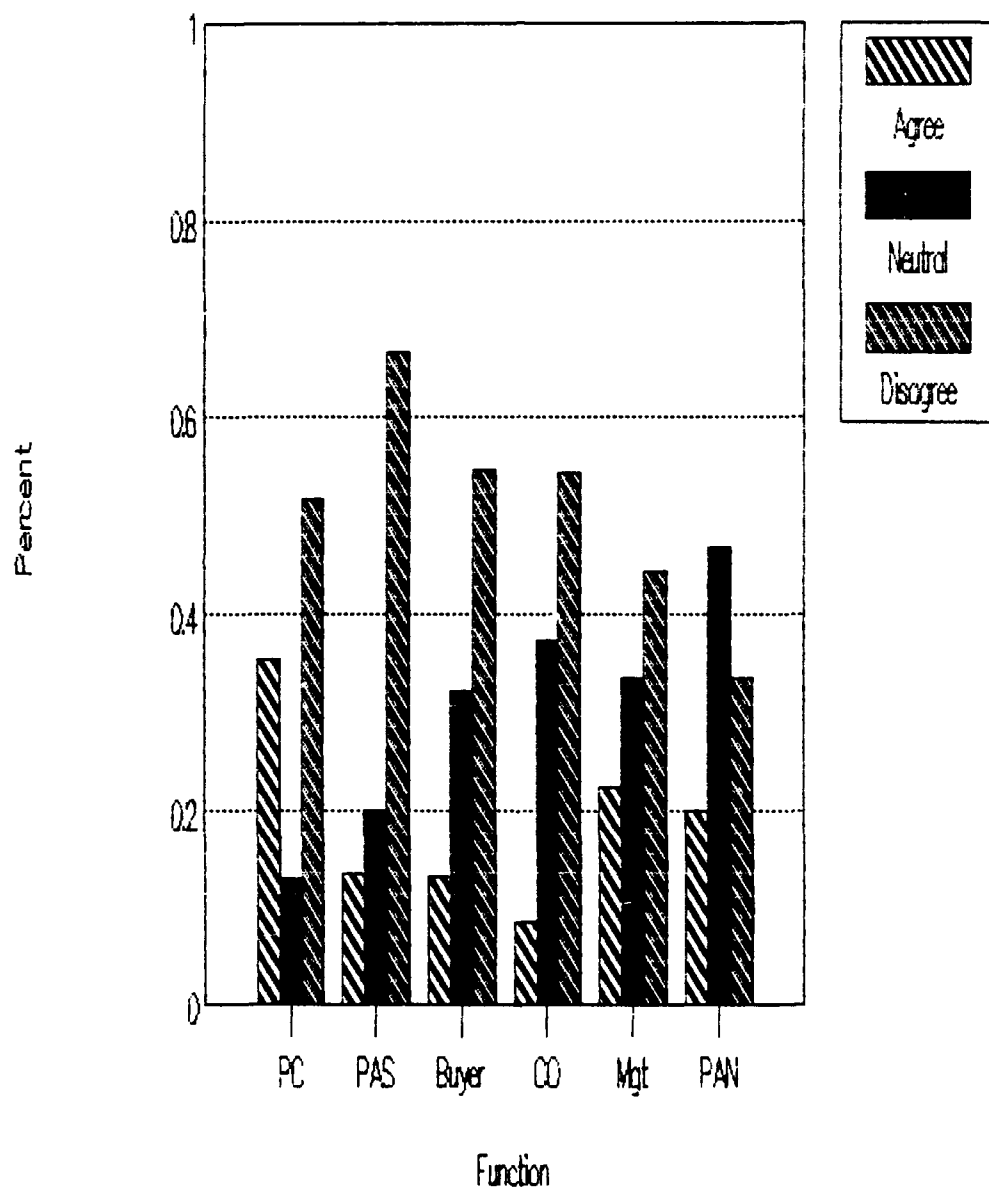


Figure 67. Notice Sufficient by Function.

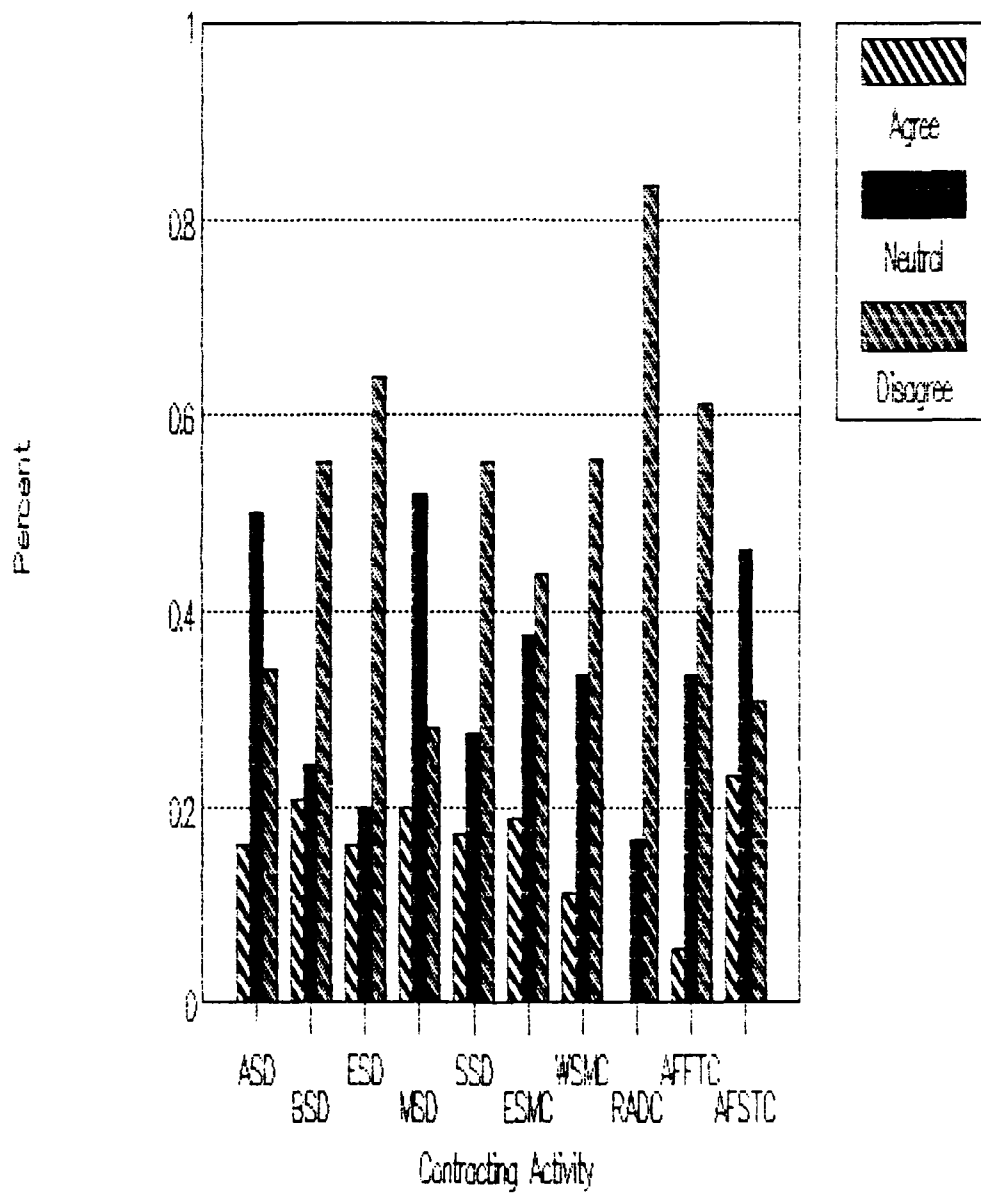


Figure 68. Changes Work by Buying Activity.

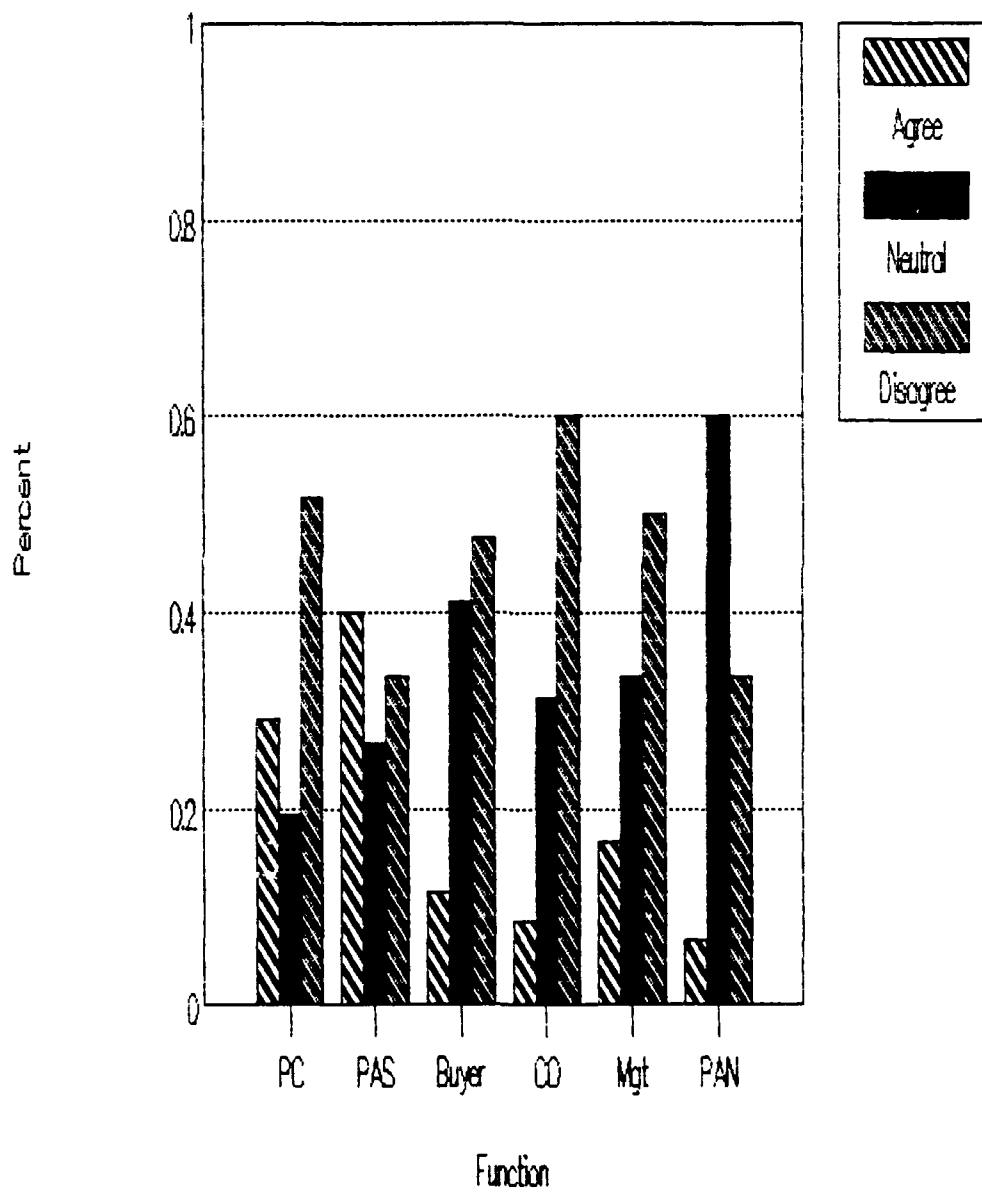


Figure 69. Changes Work by Function.

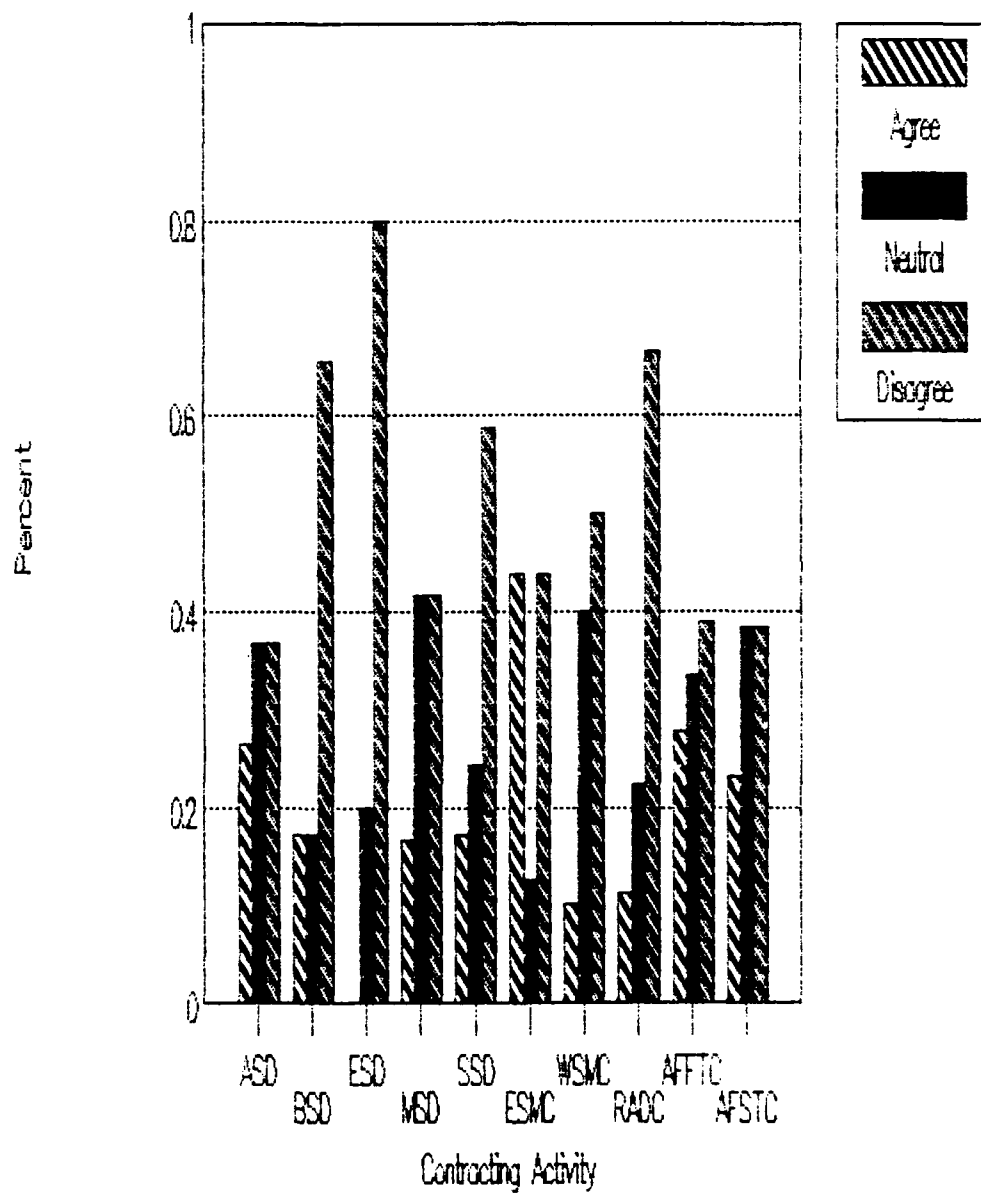


Figure 70. AMIS Easy to Use by Buying Activity.

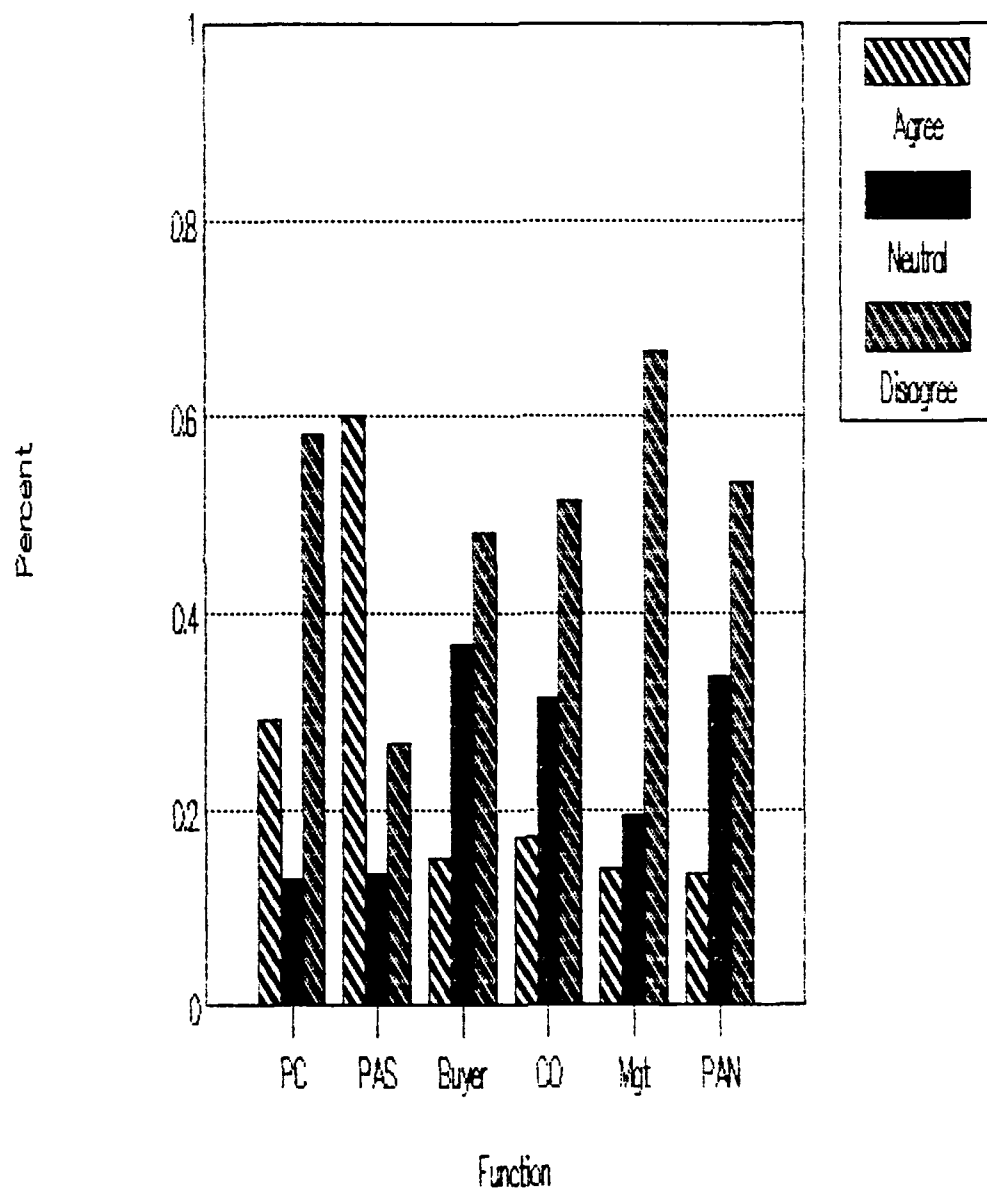


Figure 71. AMIS Easy to Use by Function.

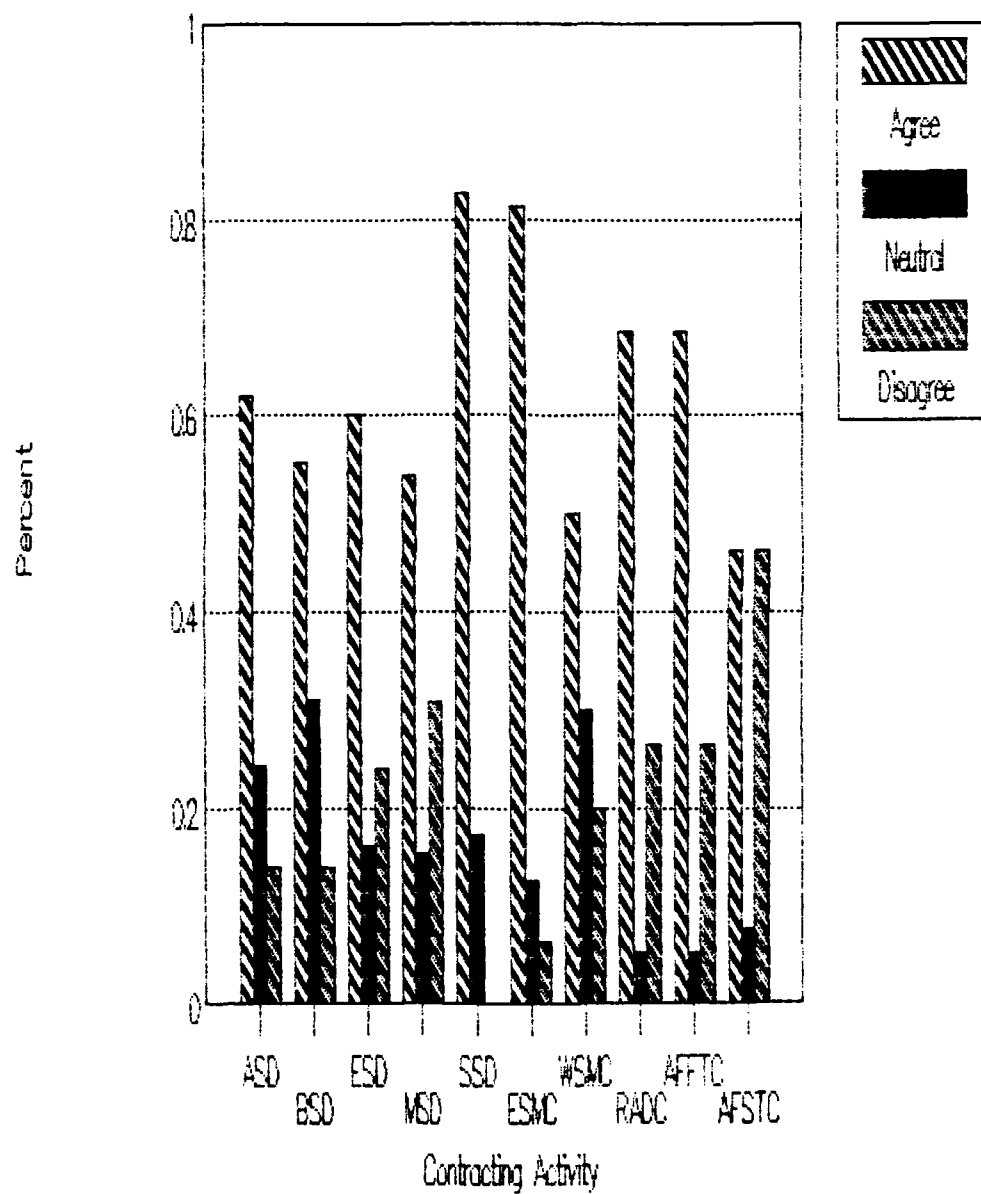


Figure 72. Management Committed by Buying Activity.

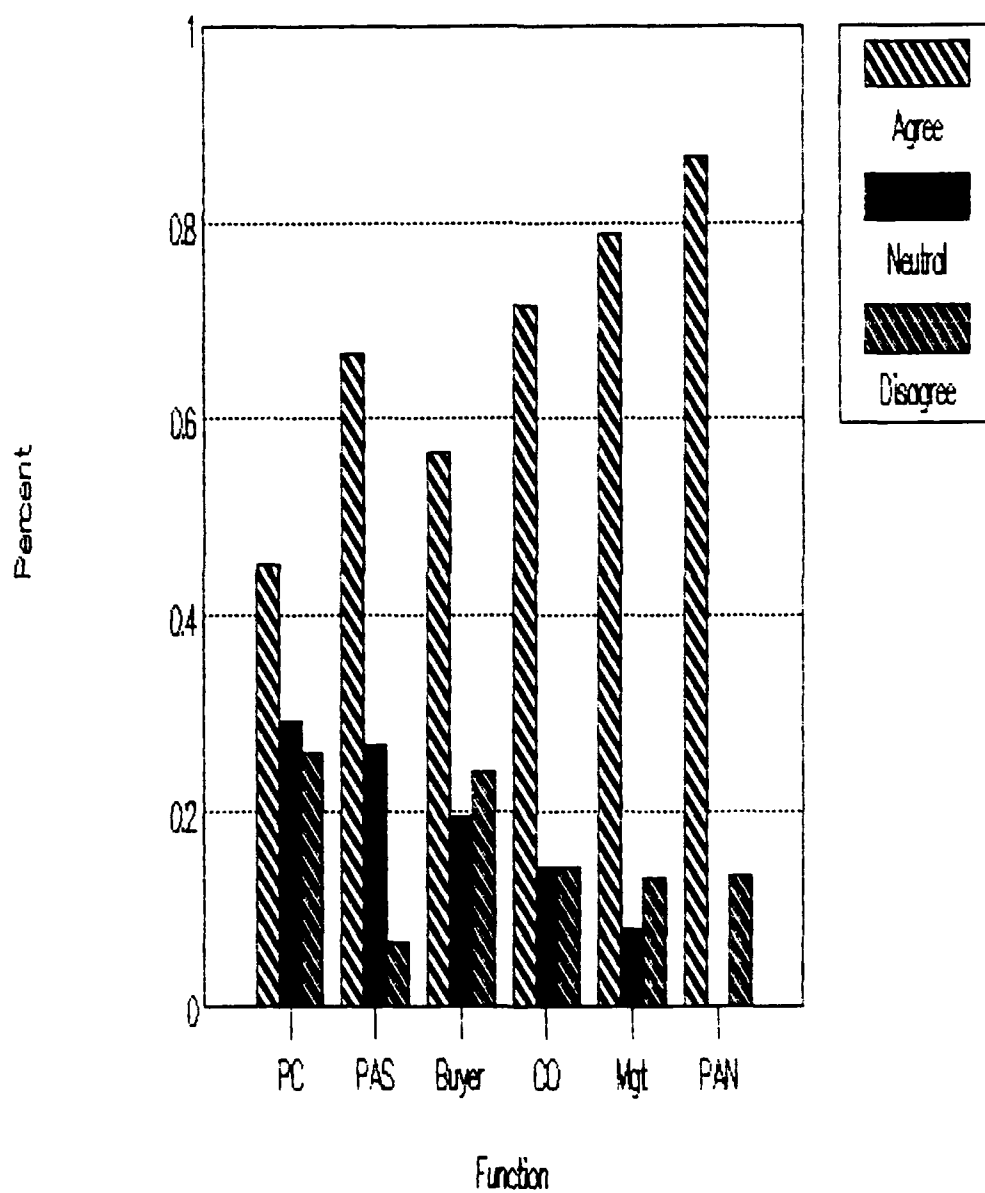


Figure 73. Management Committed by Function.

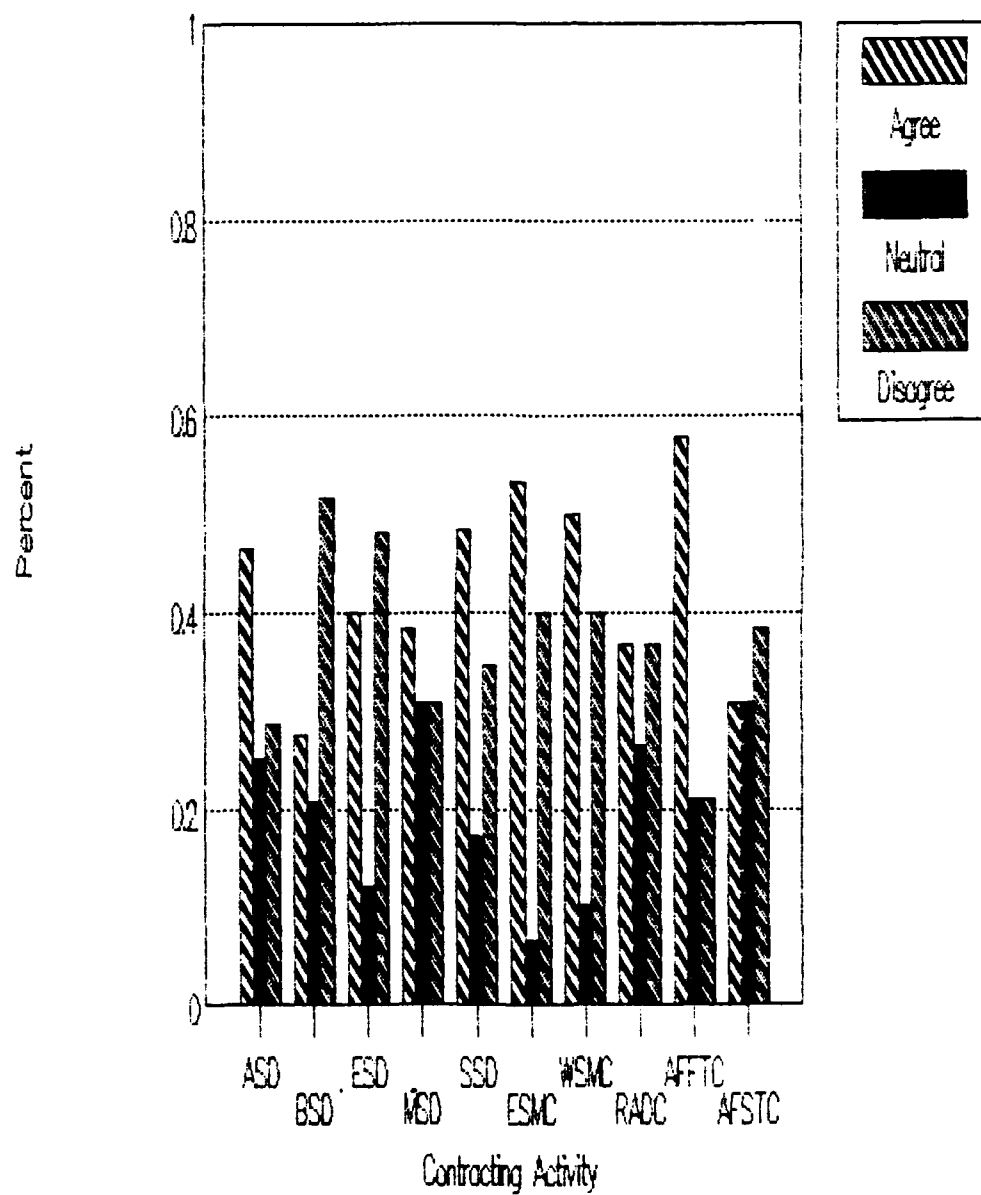


Figure 74. Benefits Outweigh Costs by Buying Activity.

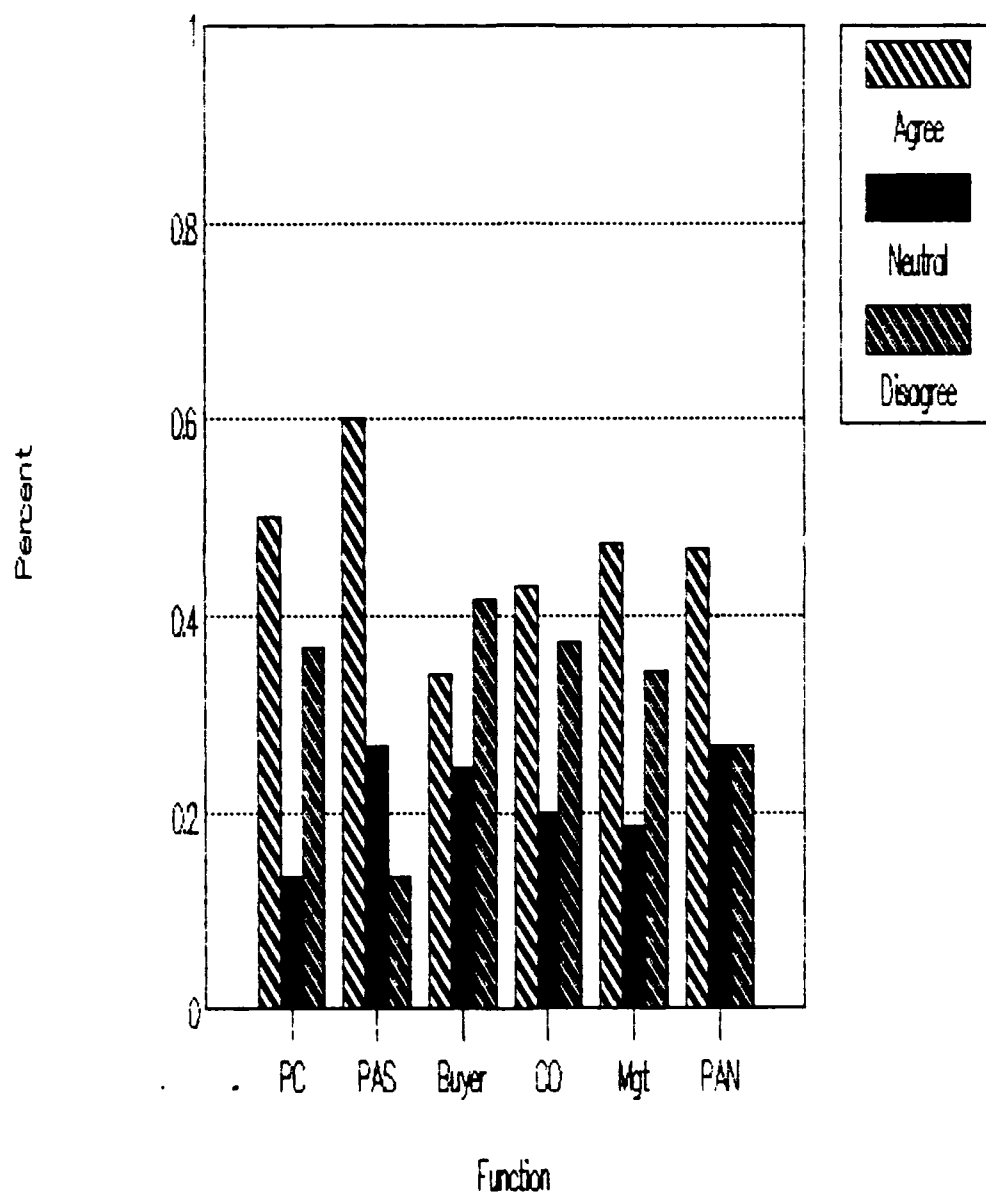


Figure 75. Benefits Outweigh Costs by Function.

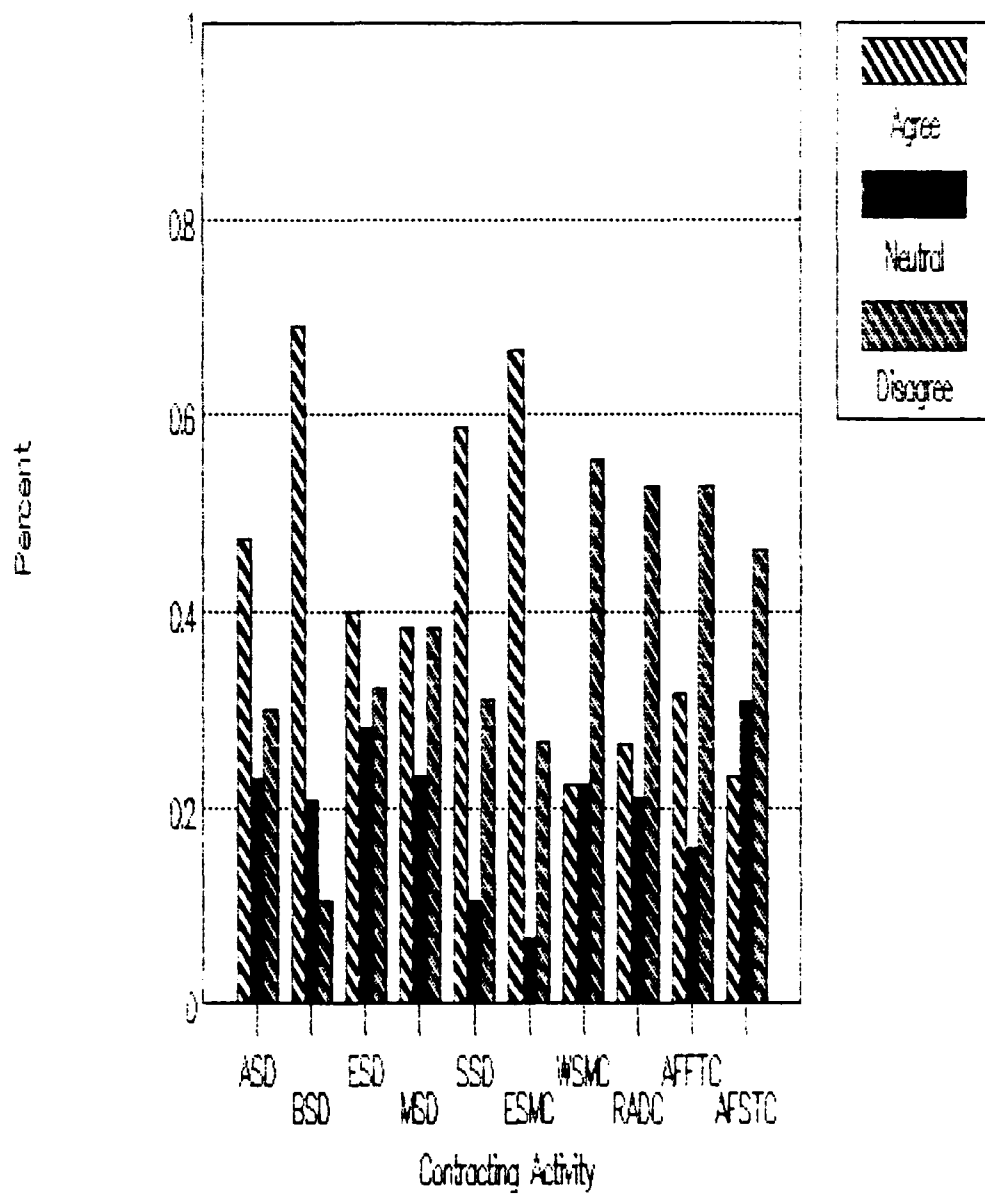


Figure 76. Enough Automated by Buying Activity.

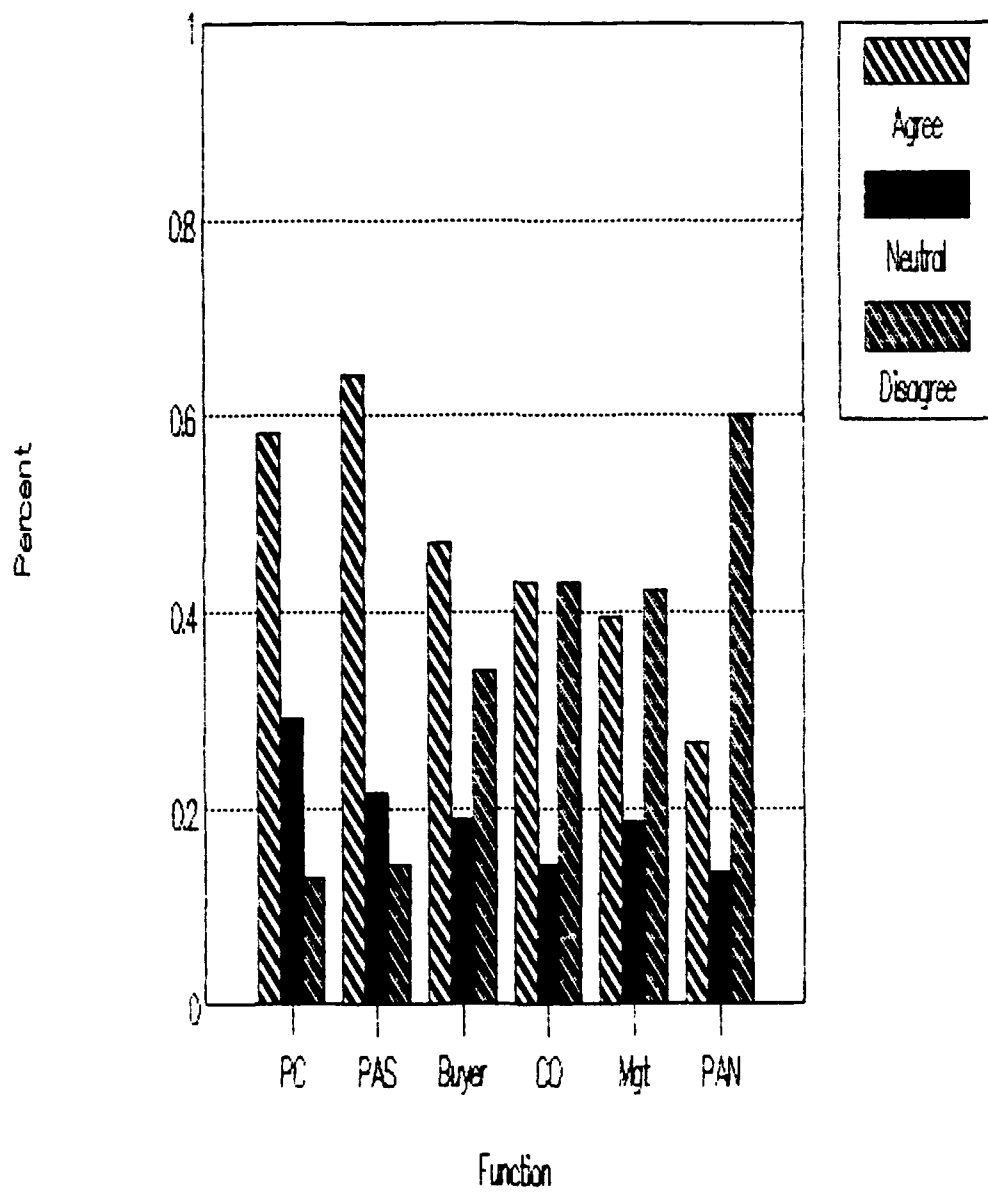


Figure 77. Enough Automated by Function.

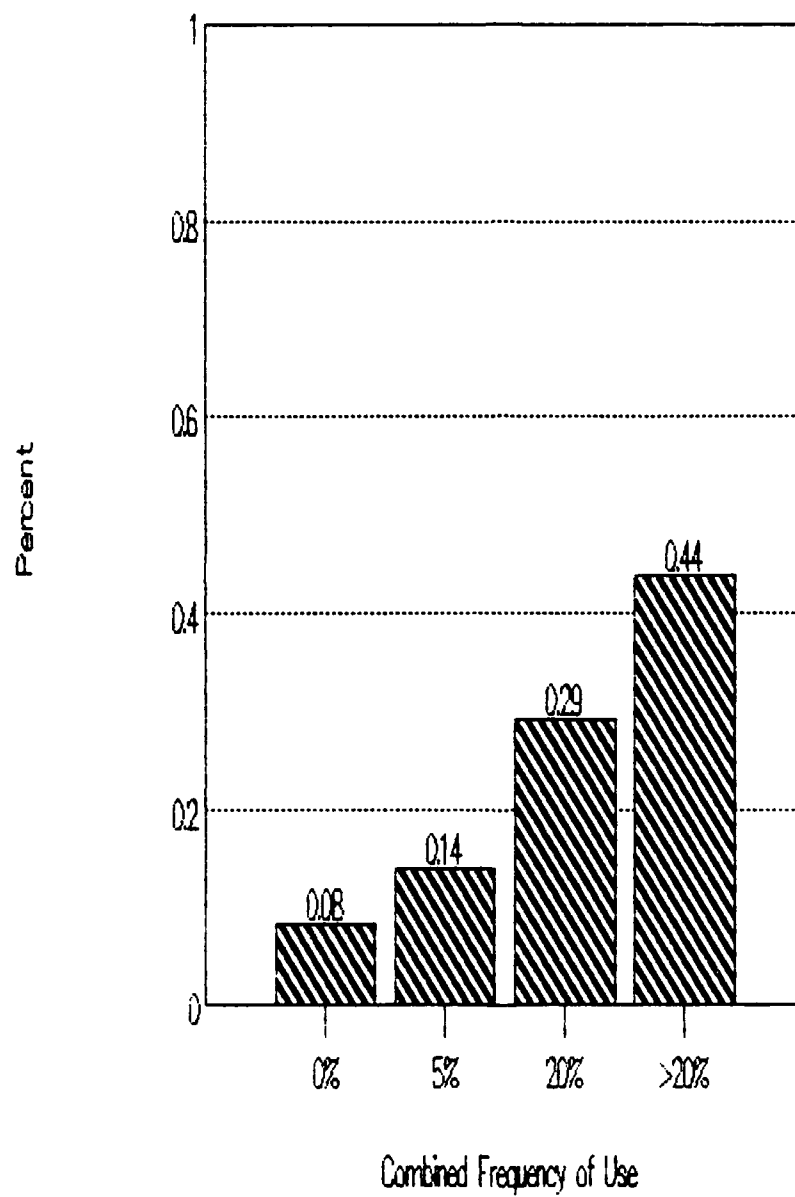


Figure 78. Frequency of Use.

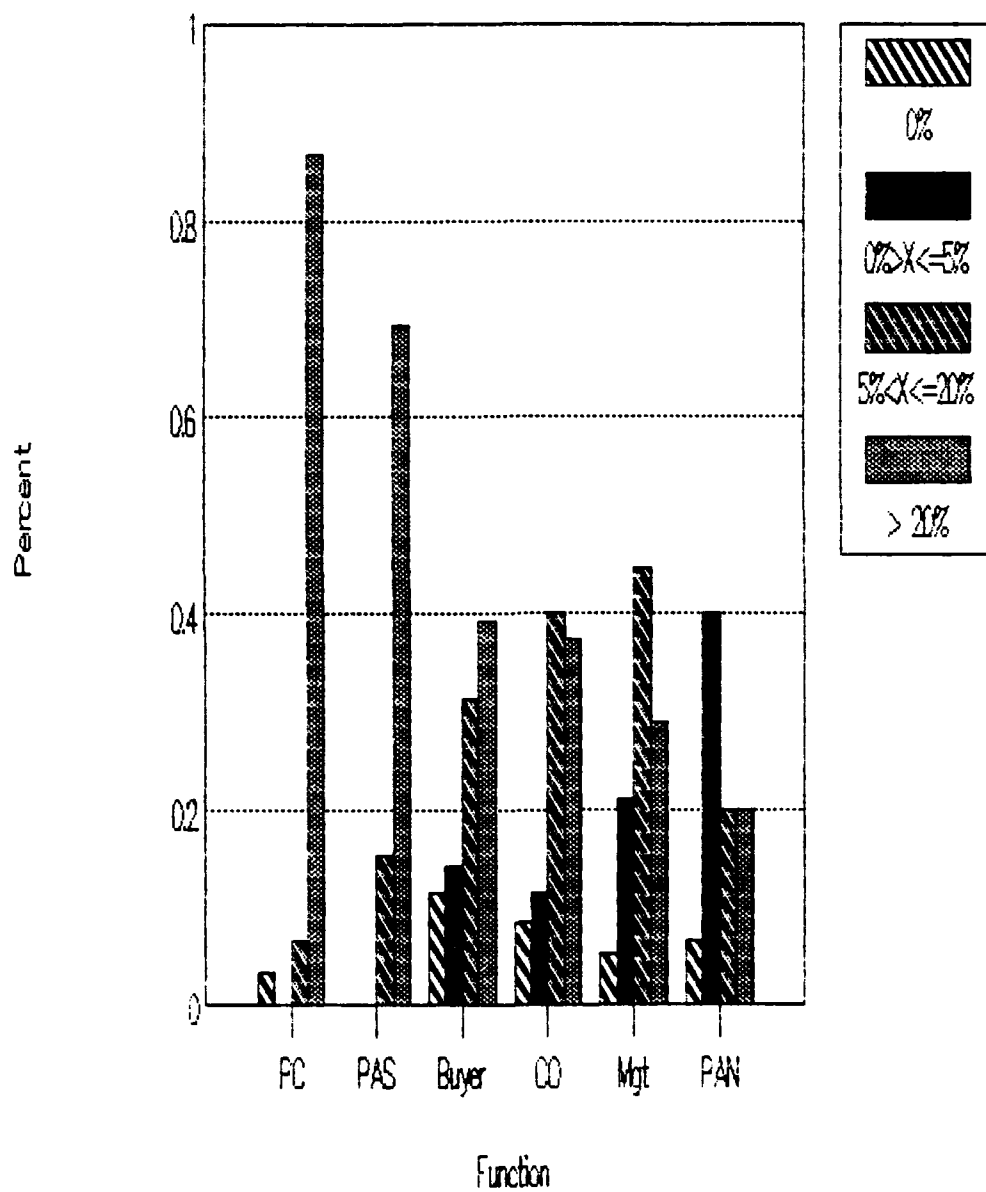


Figure 79. Frequency of Use by Function.

Appendix C: Survey Comments

Management Comments

1. I would like to see historical data transformed into graphic charts with monthly updates thru the computer base. Currently this has to be done manually.
2. The WANG "VS" is causing problems in our office. We get "kicked out" of it in the middle of a document, sometimes losing a portion of what has already been typed. There are too many people for too few lines which delays getting our work into the computer terminal.
3. The primary difficulties with PMS are:
 - (1) the wide variation in interpretation of how to input data. Because of the dynamics of the procurement process there can be a wide variance in what a computed milestone means, e.g. "PROPOSAL RECEIPT" with multiple updates.
 - (2) the standard milestone for given actions don't ever seem to match with the kinds of milestone experiences, nor are the schedules realistic. This requires tailored networks for everything - very time consuming if you have a large workload.
 - (3) reordering milestones by date is very disconcerting. The milestone should remain in a constant order even if dates are out of sequence. We are event, not date oriented - more user friendly to always have events in same order, even if they in actuality don't flow in the same sequence in a particular action.
 - (4) the various reports don't seem to crossflow changes in data to stay current. If buying plan data changes - the changes need to flow to all reports: data such as \$ values, buyer, NTE - these can change as well as dates.Regarding AMIS (DPCI), there are too many forms of access to input/create error ridden reports. In particular contract closeout records. Consistently data on \$ values, etc are not current. It is not clear even after research, who is supposed to do what or how.
4. I have never accessed AMIS myself, therefore, several questions I could not answer. I would like to see AMIS become more integrated with the buyers daily routine. That would require easier access such as a terminal on every buyers desk and educational training concerning capabilities of the system.
5. Worst.....down-time or non-availability

Worst.....DD350 input should flow 1,2,3.....8; not in AFLC checking order.

6. More training is needed on the system to know what it can do now, would be a benefit to me. I would, then be able to answer your questions without feeling inadequate. I believe that AMIS is useful, even with its problems, to aid in managing the workload within my branch, however, with the workload ever increasing, time to receive training becomes a problem and training becomes a mute point.

7. Buyers and PCOs are already working 10-12 hours per day. Don't have a lot of time to learn to input AMIS data. Done by clerk. If there is a time savings with that - need to teach us how to use quickly. Needs to be an easy way to call up unique reports, i.e. John Doe has 10 PRs with status of each - all as a one line entry and all on one page VERSUS Buy Plan for each action. Can't carry all of the volume to every meeting I go to.

8. Surveys are difficult to fill out; difficult to convey. Need a one-to-one meeting with users to see how it is used in actual practice. Users need to be able to be very specific on delay reasons for missed milestones. In the environment of 120 day source selections buyers and PCOs need to be able to account for every day.

9. The AMIS manual hasn't been updated in a number of years. Reality of system differs from manual. One reference - easy to follow, block by block - is needed.
-Imaging and CBD electronic submission are exciting ideas and needed.
-AMIS tie-in to LOTUS 1-2-3 for bar graphs (ref 27e) would be useful.
-Also, your one page buyer workload at a glance would be useful; add as PMS-N report.

10. CAI is (needs improvement). It would be better to publish that information in a book.
-You still have impossible logic in PMS. After we input data and save it, we get a message that asks if we want to continue to update. If we say yes, it puts us back where we tried to leave. But if we say no, the message says that any inputs that we made will be lost. Somehow, the data gets accepted, But your messages don't make sense.
-We need to be able to correct errors in the system, especially as they relate to UCAs. A buyer in a different organization entered the wrong office symbol on one of his/her change orders, and we could never get the error fixed. As a result, the change order showed up on our reports (screwing up all summary data) for 18 months.

-You must make it easier to move buyer's office symbols, and make them good down to 5 letters. It takes an act of Congress to get these codes changed, and in the meantime, summary reports are inaccurate, mistrusted, and consequently unused.

-We need a lot more information, and flexibility, in the "requirements" part of the system. Nobody at XXX will admit to knowing anything about it.

11. You have a very difficult job. Keep up the Good Hard Work.

12. It is difficult to get through to the system!
The idea of having two passwords is dumb!
It will be harder to get into the system.

13. The inclusion of a TQM program into AMIS/PMS database to perform more statistical calculations for each milestone by type action and to generate complete process control charts (X-R Charts) would be the most valuable change for me to improve and better control the acquisition process.

14. I have been tasked at XXX to work with the ACM and user organizations to improve the AMIS/PMS process and procedures at XXX. The single most damaging drawback at XXX is the ability to control the age of an action (i.e. stop age with delay codes, enter network start date based on our ability to complete an action (i.e. proposal receipt technically accepted), or have a second age field representing procurement age versus acquisition age since this is used by PK only with no SPO access) the later is the most desirable to realize the potential and intent of the system.

-Secondly, more report generation flexibility is needed.

Our needs and desires at XXX are different than other product divisions who also have unique needs.

-Third, if possible, people developing and changing the system should visit the product divisions to see first hand how the system is utilized.

15. Changes can be made but it is SLOW!

-Access time is SLOW!

-Terminology is not acquisition terminology in many cases.

-You need to work with system constantly to be comfortable with it - not friendly.

-you seem to assume everyone is computer literate. They are not.

16. Recommend scrapping AMIS. Utilize new system similar to TURF (being used at certain AFPROs) with certain modifications.

17. I suggest that AFSC help XXX obtain work stations for all buyers and managers.

-I'd like to see a self inspection program similar to the FAR database that is based on logic strings that allow us to key in \$, type of contract, method of contracting, etc and have a series of appropriate checklist questions come up tailored to the particular file being reviewed. It needs to compile the discrepancies as they are input and prepare a summary document.

-The FAR database needs to be improved so we can write construction, base level services and supply contracts.

18 The biggest complaint with AMIS from the start has been that it has little benefit to the main line worker - the buyer. The WANG computer is the first step towards a helping tool for the buyer but the AMIS manual has never been changed to reflect what the operator sees on the DPCI screen. The frustration level has thus increased because there's now no relevant reference instruction to consult. -AMIS/PMS can be a helpful tool to the worker as well as management but solid, steady, available training that explains not only the what but the why and the how to use must exist. This should be a full time job and the person must have proven teaching skills as well as contracting and computer knowledge. Until you win the hearts of the buyers, the system will be plagued by errors and bad data.

19. The contract information that is contained in AMIS is very valuable however we have had trouble updating it when it is incorrect. For example, when our contract face values or obligations is incorrect, it seems that no one understands how to change it, or the process is so cumbersome that no one wants to bother.

-I believe that there are certain inputs made into AMIS by the contract administration side of the house. It is unclear to me what they do in this regard, how it affects my contracts, and how I can understand all of this. For example, I have some contracts that have been terminated. I have issued all appropriate mods that should have changed the code from A - active to T- terminated, however, the code is still showing.

My AMIS people tell me there is something that must be input by the ACO community in order for my contract status to be correct. I feel helpless because I can't get this resolved. Mostly, it is a lack of knowledge problem.

-Getting into the systems is a problem for us right now. We are going through the new password process and we have been shut down because no one understands how it works.

-BOTTOM LINE on what is the best system for the user: make everything as user-friendly and menu-driven as possible. Contract negotiators have too many other things to learn about and keep track of besides trying to figure out how to get into their computer and how to get out and put in the information.

20. System is hard to access for an occasional user. Far too many steps. Make it simpler for managers. System off-line too much. Too many delays in getting out contracts. Always waiting on AMIS for something. Too many bugs in the system.

21. PMS is very helpful in terms of reporting and tracking. I haven't figured out how AMIS is helping us in the buying office. Rarely do I pull an AMIS query. Information is incomplete or incorrect. The time involved in training, input, ACM reviews, do not result in a benefit.

22. Who uses the output, like DD350 information? ... the perception is that the data is not accurate and therefore not usable.

-When will the SPOs be tied into it. There is a lot of wasted time providing the same information in different formats to the SPOs and the AC community. That brings to mind (that?) the AC community should be tied in to AMIS also!

-Since I was thrown my first AMIS manual in 1978 not much has changed with respect to training and use of AMIS/PMS.

-Although I support AMIS/PMS in theory, in practice I think we are often fooling ourselves. If anyone cares to discuss this more I can be reached at XXX .

23. AMIS was developed as a reporting tool for AFSC management. It is not "user-friendly" and must have been developed by programmers with little knowledge of contracting. It has little utility at my level.

24. AMIS should move toward applying industry standard protocols. It should also allow for enhancements as technology changes. We should not be held captive of one technology/contractor, i.e., terminate WANG!

-The overnight BV2 process is the worst feature of AMIS because it directly impacts productivity.

-AMIS access is also a problem. My office was unable to access AMIS for a total of 97 hours in July alone!

-In my office, we use the WANG terminals for E-MAIL, AMIS/PMS, only. We use Apples and Z-248s for word processing, graphics, spreadsheets, etc. This is very inefficient.

25. AMIS down time is excessive! No APS systems.

26. Milestones are totally unrealistic both in nature and time.

-System needs to be on-line and branches should have access to AMIS. Too much time is spent trying to get minor corrections or administrative mods out of word processing center.

27. We need more reliable communication lines between our point and yours.
-Need more user-friendly system
-PKQ people are always ready to support our needs and answer questions.

Contracting Officer Comments

28. Until very recently, there were absolutely no people with buying/contracting experience in the AMIS office.

29. Real language manual!
Up-to-date training.
User friendly programming.

30. AMIS is a Dynamic effort that I believe is growing with the ever-changing contracts business. I was an AMIS monitor in the 1976-1979 time frame and have seen good improvements and applications. I believe in the system but have been away from it on a day-by-day basis. Keep up the good work!

31. Scrap the entire system to cut losses. Totally revamp and truly modernize.

32. We administer contracts on XXX. There is not an AMIS terminal here. The procurement assistant drives approx 25 miles to use the terminal at XXX for the entire group. He/She has difficulty inputting. It takes several days to recover from an error. We do not have a lot of AMIS inputs, but on occasions where we do this is our biggest time waster. We are not a typical AMIS user, so I don't believe this report will be representative. I was unable to respond very well as I do not personally use the AMIS terminal. We fill out the worksheets and give (them) to the procurement assistant.

33. AMIS/PMS is great when the prompts for the novice user are available. Don't make changes without letting us know!!!

34. Frankly, as a Contracting Officer/Buyer AMIS does little or nothing for me since I know the status of my work. I don't need an AMIS printout to tell me where I'm at. I've always viewed AMIS as one of those hassles I have to put up with to accomplish my job. Further, the AMIS/PMS has further complicated my job because it demands dual inputs -- one for AMIS and one for the local contract tracking system. -However, it is my understanding that XXX will, in the foreseeable future, have the ADPE available on every buyers

desk to facilitate buyer input into AMIS and further buyers will be compelled to input directly from their desk terminal to AMIS. So...I would hope that AMIS will be simplified as much as possible and oriented to serve buyers needs as well as management needs.

35. Management information about contracting actions should be generated as a consequence of the process used to get the job done. The buyers use of the computer should be a tool to generate products he/she needs, i.e., the RFP, file documents, etc. Then tracking data for mgt purposes should be generated as a result of using the tool. Now PMS serves no value to buyer - it is an impediment to the primary activity - issuing RFPs and awarding contracts. A special effort is required to input data strictly for management review. Most buyers/PCOs in systems contracting can effectively track their workload manually because they handle a small number of actions at one time. In fact, at XXX, we keep contracting Directors advised of status on our programs by manually marking up a word processing output listing our programs. Clerks then update this data base. PMS seems to have no value to management at this level either, because it is never "fresh" enough and big programs are constantly discussed - so the "real story" is in a manual report. We have lots of micro information in PMS, but I believe only the macro information is ever really considered by anyone - because if you really want to know the status, you call the PCO. PMS should be reduced in scope so that only significant milestones are tracked - and those milestones should be monitored as a natural outcome of the process - e.g. A milestone is noted when the RFP is generated by DPCI, when RFP is mailed, the fact is input by a clerk who scans the cover with a bar code reader, etc - AFLC has more of a production and volume oriented system - but I believe they have some good ideas - if not familiar with their system, you should contact HQ AFLC/PML at Hill AFB, UT to get some ideas which could perhaps be adapted to AFSC. But whatever you do - you should make PMS user friendly - get rid of nonsense codes and numbers needed to input data - make the whole thing menu driven with questions keying the next step - and by all means - make it easier to log onto. One should not need 3 userids and passwords to get from WANG office into PMS. Good luck! You have quite a challenge ahead of you!

36. At XXX the AMIS system is "down" far too frequently. New equipment is desperately needed - I do not understand why this is not a top priority item.
-System is not user friendly and is too slow.
-Lack of sufficient terminals hampers employee utilization of many of the system's features.

37. The AMIS/PMS systems generate more work than they save. It appears that these systems were designed in a vacuum. The people who are required to input to the systems and use them on a daily basis were never asked for inputs into their designs. It appears that people apart from and unconcerned for the user designed these systems. The system provides no usable products for the users; delays procurements; requires manual backup; and, most likely provides erroneous information to management. I am glad that AMIS does not generate my paycheck. Aren't you?

38. The system has many problems such as:

- Basic 350 does not flow to mods
- The system is down quite a lot
- The system itself is a major block in getting documents prepared and distributed.
- Without system as PCO could get mods typed in half an hour and out the door.
- How is the system supposed to be better??

39. Train all levels of personnel at XXX - no one really understands the system or how to use it.

40. In order to make the system a tool that is useful; it must be recognized that all the buyers and contracting officers must have an AMIS terminal dedicated for his/her use. At present AMIS is a reasonably good tool for senior management to query with regard to status of PR packages but of little use to the buyers in the pits. To make it a tool that would be useful to the working level buyer the on-line capability must be sold to show us how this management system will benefit us and not just make management more distant from the individuals doing the work. We must have the on-line contract drafting capability that includes all contract clauses, on-line FAR research capability, plus all the other capabilities listed in question 20 of this form.

41. WANG downtime is too high.

- Buyers are not allowed access to AMIS/PMS.
- Updates to data base are not current.
- PKO will not decentralize PMS tracking.
- No access to other features.
- DD 350s have to input same info over and over.
- WANG not compatible with rest of base computer system.
- Use word processing most.

Buyer Comments

42. As a contract negotiator with a heavy work load, there is little time to halt the work and practice on a computer.

True, it is useful and needed for some particular tasks. However, they do not occur often enough to gain any real proficiency. Then, when one does have a task to perform, he does not have the skill to do it proficiently. I have acquired some proficiency on one system, then they come in and change it, forcing one to start all over again. Don't have the time for that. The faulty system is now in place and I'm too behind. I have never seen a computer negotiate with a contractor.

43. PMS works great for me to manage my workload with a quick look. However, management relies on this report to determine my milestone status and that info is not up to date nor is it always accurate due to system problems and input inconsistencies.

44. Please provide course to clerks on AMIS (Contract Writing).
Provide AMS/AMIS courses to buyers.

45. It is very inconvenient to use the workstation because we only have 3 for 15 people.

46. PMS is a good guide or "quick look" type system - but it is not an adequate system to determine workload or micromanage (management complains because updates are not being made or milestones are passed before they are updated. We have real work to do).

47. Myself the word computer or workstation frightens me. I do not understand computers and I do not use them. I have been in the procurement business for over 20 years. I think the PMS system and AMIS system is necessary. It can and must be made effective to improve my job and management capabilities. BUT train me in the basic use of a computer to help me to improve my job and I will be happy to use both systems.

48. I have found AMIS to be complex and difficult to use - definitely not user friendly. As a buyer it has only complicated my job, creating redundancies and complications which only make the work more time consuming. More training might help, but a machine which only regurgitates input is of no practical use to me. I need a decent word processor more than I need AMIS. Thanks for asking though!

49. Biggest problem with AMIS/PMS is inaccurate data.
-Management does not take full advantage of available tailored reports.
-Use of system is limited to specific persons in the organization who are not always available or amicable when a report is needed by lower grade acquisition personnel.

50. The worst feature of AMIS is management constantly emphasizing need for all personnel to do their own data when I only do some of the data on a very sporadic basis and have to re-learn how each use. Some things seem better suited to have central point where collectively entries are done often enough for person(?) to know how. Also, as noted previously, I think it's bad for numerous people to be spending lots of time to get into the system instead of a central point.

51. Immediately: add a prompt that says:

"TO SAVE THIS INPUT PRESS Z" where necessary.

-Program menus to pop into place instead of slowly scrolling down; make all menus more accessible (like Apple and MAC)

-But my most valuable comment is this - reverse the input process. Let us type our data in word-processing format as required, then use NEW technology to SCAN that document and thus input the data there on directly into machine/computer language. This technology is relatively cheap and available in every Radio Shack/computer store in this area. Cost to input the typed page is about \$.06 at commercial rates.

Machine to input (a scanner) is about \$1000.

52. The AMIS system is by far an antiquated computer by modern standards. The usefulness of the system is minimal. In addition, a persons contracting, negotiation and contract administration is not judged by contract experience rather by AMIS input and knowledge. The basic theme at this facility is "If you're a good AMIS clerk you must be a good contracting person." What is seen is overpriced clerks (that is GS-11,12,13's inputting) do AMIS work.

53. One person in our organization is labeled "GURU" and we get whatever info he/she deems relevant or necessary, and it's usually not in a timely manner. Many discrepancies between AMIS and Small business regarding what info will reject. Too much second guessing with AMIS. Tired of hearing, "AMIS won't allow you to input that!"

54. BSD was using a direct input via Z-248. It's now using a local VS-100 to control data input. This system is very trying. Reports, outputs, and DPCI require exiting PMS and using WANG Wordprocessing to edit and/or print the output. Prior to this the buyer could get outputs at a much quicker rate. This system requires 2 times the effort to get a report. This ties the clerks more and more to the computer and the required time to move a document thru AMIS has doubled. The system is would around WANG equipment too tight which requires the user to be familiar with numerous word processors all conflicting with the local area network programs. Messages that require distribution must be retyped in WANG to be used on AMIS and WANG messages can not be sent on the LAN.

55. My suggestion is to have AMIS keep an entire contract on computer file (hard drive); then whenever a change is made, the computer can prompt you to tell you where all the changes are needed throughout the entire contract.

56. AMIS does not work for us, usually against us. It's not flexible when something is needed in a hurry; system is down or you can't get in.

57. Fact - not all DCAS ACOs, buyers, CAs, FOs, etc use AMIS.

Example: An "A(admin) mod" with a price increase. No AMIS, therefore for each A mod, we have to cut another mod to get new face value, obligation amount, etc. info into AMIS.

-I use both AMIS and PMS as a buyer. I like both. I'm told that this makes me weird! KEEP UP THE GOOD WORK!

58. All input to AMIS and PMS is done by XXXX. Buyers, etc, do not have direct input capability. Two summary sheets that include the current status on all of my actions are the most useful tool that I have, not the separate PMS sheets. Separate PMS sheets become an extra burden because I have to update them in addition to my summary sheets; I must turn them in to XXXX and take time to refile them each time there is a change. My summary sheets provide easy total workload management and I only have to input to WANG on a weekly basis. I can quickly pencil in notes during the week.

59. I am new so please note that. I have been at XXX less than 2 months. However, I have received no training in regard to AMIS or document prep.

60. AMIS is not flexible enough.

61.

A. I believe the worst features of AMIS are:

- amount of computer down-time
- contracting officer's lack of concern as to AMIS problems (BV2,etc) and their "arbitrary" waivers of AMIS requirements
- no effective way to interface AMIS with secondary delegations (mods) and delegated contracts

B. The best features:

- purchase request tracking
- verification method for uniform contract formatting

62. PMS is useful for developing schedules for planning purposes for a new contract. It is also helpful for keeping track of lengthy (time-wise) supplemental agreements. However, it serves no useful purpose to Buyers for Admin Mods or Supplemental Agreements which do not take long to put on contract.

-Workload should not be judged entirely by entries into PMS. The amount and extent of additional duties, correspondence, etc should also be taken into consideration.

-The automated milestones for a new source selection do not meet XXX's streamlined Acquisition Goals. It would be useful to have an automated funding summary.

63. Updating is cumbersome when you have to keep accessing the menu to get back to a particular file.

-since the DD350 is in the computer, having the 1547/1861 and 1279 report computerized would be helpful.

-Inputting an actual date means regenerating schedule dates back to office predictions; not machine predictions (very time consuming).

64. The system is much better than it was when I first started using it in 1987. It still takes a long time for a new person to learn the ins-and-outs of using PMS.

-One of the big frustrations is the lack of the systems ability to remember the action you are working on. For example, if you create a PMS Buying Plan for a contract action, you have to exit out of the Buying Plan to get into the DD350 mode and then you have to retype the contract number. It would be much more efficient to enter the contract number first and then be able to move from Buying Plans to DD350s in a simple keystroke.

65. I think more training for those who use AMIS/PMS is called for. But most important, we need to know what individual within each organization is responsible for input procedures. As a buyer/negotiator I have often found that our clerks and PAs put all AMIS/PMS duties "on the back burner." I feel that if this data entry of all AMIS/PMS is in your PD, then it is that individuals responsibility. Most buyers do not have the time and/or knowledge to perform all AMIS/PMS/DPCI tasks.

-In most SPOs, buyers do AMIS/PMS/DPCI themselves. However, I feel this takes time away from my more important tasks.

66. You know, if you people would just leave things alone for a while and let the work force become knowledgeable in some of these areas which seem to "constantly" be in a state of flux; maybe morale would improve, productivity would improve, etc. As it is, most contract negotiators don't bother trying to fully learn or understand all these changes because most of us figure the personnel at the upper echelons (most of whom have little experience in buying or it has been years since they were in a buying activity) will change it anyway.

67. Make getting on system and logging on much simpler and timely.

68. I have no idea who uses AMIS or why. PMS is used by management to track the status of contract actions but nothing else.

69. Inputting a DD350 is definitely not user friendly. I have spent at times over 8 hours with a clerk to help her get the 350 into the computer correctly.

70. I find AMIS abysmal and frustrating. I understand the need to have a central computer reporting and tracking system and agree the theory and promise of possible benefits make the system very desirable. However, the system is extremely difficult to use. Access to the system at Wright-Patterson can keep tied to a terminal all morning long and accomplishing nothing constructive, however at times the information must be input. The system is extremely difficult to learn. After working with it awhile it is not too bad, but to try to learn something new is usually such an annoying process it is not worth the effort. The messages of how to clear up problems are far too brief and abbreviated to be of any use. The interaction with other data bases such as DPCI cause problems. I have had actions held up to a week on several occasions when the modification is correct but it does not agree with the data base. I have tried to use the AMIS user manual and find it to be one of the worst manuals I have ever seen. A more direct or reasonable manual combined with access to the system would do more to further use of the AMIS system than new features or capabilities.

71. As you may be able to tell, most of my AMIS experience is with PMS. This office thinks the PMS system is aptly named. Our biggest gripe is the trouble in printing out our status on each action. Using the shift and print screen keys gives us very jumbled DD350s - the PMS buyer's milestone display is not quite so bad.

-My other comment is that I have a very odd contractor who takes from 4-12 months to respond to an RFP, yet the director wants the milestone display entered as soon as the RFP (for mods) goes out. Several have eventually been canceled because we could not get a response. When I try to re-use those mod numbers, I can't. Now what? There are no mods against the P00000#'s!

72. I am a new user of AMIS/PMS and therefore do not know enough about the system to comment at this time.

73. AMIS is a very useful tool for planning purposes. The perspective must be maintained that this is a tool to be used and is not a master which dictates how planning is done. Therefore, time and resources devoted to the mechanics (inputs, queries, etc) must be commensurate with the value as a tool.

74. Make the outputs from an AMIS "string" clearer. Sometime when you pull a string (i.e. tracking funding) you have to make some assumptions as to what the info you have been given means. The legends/descriptions are not always clear.

75. The PMS system could be an effective management tool if used properly. I'm not convinced its happening in many cases. Inputting and updating of data is very time consuming and not getting feedback from immediate supervisors seems to be defeating the purpose.

-As for AMIS. Why aren't there more dedicated AMIS lines?

One line per office becomes a logistic nightmare.

-An ideal workstation is one where every two buyers have access to a dedicated AMIS/PMS line.

76. PMS needs a lot of improvement. It is not user friendly and is a "pain" to use. Buyers hate it because it forces us to give input with a lot of "pad" in it just to get the system off of our backs. If you continue to change dates for milestones, it appears as though you're not doing your job. But, the fact of the matter is that it is difficult to make predictions because there are so many people involved with your acquisitions. The system doesn't always allow you to explain yourself. We are sometimes pushed into putting in any date(s) just so someone can complete a report. And then one-half of the time PMS fights you while you're trying to input. It's a waste of time. We did just fine before we had PMS.

77. I believe that PMS is extremely user-friendly, cumbersome and frustrating. Entry procedures are changed frequently and our office is not notified until we find we can't access the system. Rainy weather plays havoc with the system. To update a Buy Plan you do not have access at the time you are updating. MU does not show what you are doing until the action is complete. When you try to exit a command the user is asked "Do you want to continue updating? Yes or No" This is an unnecessary step and slows the process. In response to the first question on this questionnaire - PMS is an effective tool for tracking the overall status of contract actions - It could be more effective if the buyer was able to input actual dates prior to PR input date. There are times when an action is worked prior to the issuance of a PR. I try to put the information in "Remarks or Delay Reason" but it would be helpful if under "Actual" you could input the Actual date of action. The system is very slow and requires a great deal of a buyer's time. In addition, many buyers are trying to access one computer. This impedes proper usage.

78. Milestones do not always match up with the type of contract and the dollar thresholds.

- Limits are too stringent regarding the changing/deleting of forecast and actual dates.
- Suggest running the report every other week instead of every week.
- If buyers were able to do their own inputting, errors and problems could be corrected right away.
- Allow more space for remarks and reasons for delays.

79. Concept of the system is good and it seems fairly easy to use.

- Worst feature is the overnight reports. Should be able to get these reports in a quick time frame, i.e. BV2s.
- Since I am at an off base location the system seems to be down quite a bit due to either the modem to the base, or at the base itself, or at AFSC.

80. We input into AMIS on a weekly basis to give status to managers. Obviously, it isn't a useful tool for them because there are several status sheets generated each week, requiring the same information that we put in PMS.

- Buyers spend more time providing status than giving attention to PRs and awarding contracts.

81. Only YYY has access to AMIS/PMS at XXX. This is unacceptable since buyers/CO are responsible for the information but have no control!

- Lack of computer knowledgeable individuals is high. How can AMIS be effective/efficient if management is not "computer smart?"
- Present system is ineffective/inefficient to buyers/COs needs due to mismanagement on the part of YYY at XXX!!
- Computer system is unreliable (high downtime). I believe this is based on lack of actual computer knowledgeable individuals. System at XXX is run by individual who doesn't know what he/she is doing and will not release any control.
- Lack of computer knowledge on the part of all management makes system ineffective (do not know or understand the system).
- Why must DD 350s be processed for actions under DFARS thresholds.
- If AMIS contains information (DD 350) from previous actions on the same contract, why must paperwork be filled out again? Almost all information is already input into the system; can it not compile it into a DD350? This takes buyer time to reaccomplish every time.

82. AMIS system should be expanded to allow more on-line access.

- Down-time is too high.
- Updates to data base are not kept current.
- Why are DD350s under \$25,000 required?
- Information required for DD350s need to be input every time DD 350 required for same contract.

-Best feature is the word processing.

83. More reliance is being placed on buyers to make data entries instead of relying on clerks. This is a good idea, if enough terminals are available, but are not - presently buyers are wasting their time on standby.

Procurement Clerk Comments

84. Input of data in AMIS/PMS is repetitive. You have to go through many steps to do something fairly simple. Input/retrieval could be much simpler if a new input system were created.

85. DD350 - Believe input would be simpler if information was pulled from last mod and not the basic contract. Sometimes codes, names, addresses, etc., change after basic is written. This way information would have to be input in only one DD350 and not each time you do a 350 for a new mod.

86. I believe that AMIS has good features, there just need to be more access to phone lines for hook-up. There are 2 computers with AMIS capabilities in my office but only one phone line to hook up to .
-AMIS orientation training would be useful to all newcomers.
-It would be very helpful if AMIS/PMS was accessible over the weekends on a continuous basis. Some weekends the system is up on Saturdays (but one can not depend upon it always being available).

87. The PMS system was an easy and user friendly system - Until the input of DPCI. DPCI has taken a one step process and made it a 5 step process. DPCI was input and CPTs removed without any concern for how to transfer from CPT format to DPCI. DPCI BV2s reveal errors (lack of info on 68X) but when trying to correct errors it is found that no such "slot" is available for the needed info. To transmit documents through DPCI many of the pages must be manually "rigged" in COM DOCUMENT status before transmission - Do to not being able to input the proper info When in the DPCI format. DPCI was, and still is, the biggest waste of money and time that this organization could have gotten. Putting it nicely DPCI (needs improvement).

88. I wish that the buyers could do their own buy plans. I feel that DPCI will not be used by 95% of the buyers and PCOs.
Buyers have an attitude problem when it comes to learning how to do some of their own work and most of them can't even operate computers.

89. I feel they change the ways of doing things far too often. You learn one system and they change it. This is very frustrating.

90. I think that AMIS/DPCI Program is very cumbersome. Every time I do a mod in DPCI there are just too many steps required to input, send, print-out and validate. I feel the input of mods should be done directly on-line like the DD350s and Buy Plans are done.

91. Request more training on AMIS.

-When using DPCI (AMIS) why can't the system create a communication document and a print document for the user?

-Why can't an option be added to the system that will allow the user to copy text to disk without having to archive to disk?

-Why is it so hard to make a change/correction? The system should be able to allow the user to specify the screen they would like to go to without going through every screen.

92. When we do a DD1057 on AMIS, we're asked different questions every time we do one. We need some uniformity on the questions. We have tried to create a worksheet the buyers can use to do a DD1057 but they always seem to be missing about 5 questions - and they're always different questions - so we have no uniformity as to what to expect and what to ask the buyers for.

93. Best Feature: Overall, it's great for all intended purposes

Worst Feature: Too many data entries for an end result and sometimes inconsistent with what or how those entries are input (too many processes).

Missing Features: On-line capability (although I would guess that depends on what type computer one has)

Ideal Workstation: That everyone (PCOs, Buyers, Clerks) have a computer (PC) on their desk with on-line capability.

Unless this happens, Contracting automation can never truly be understood or appreciated for which it's intended. To retain proficiency, one needs daily access.

Procurement Assistant Comments

94. Until recently I had direct access to AMIS through a FALCO. This was taken away from me and now I must use my Z-248, enter the WANG system, then dial AMIS. It is very slow and time consuming. If I have a phone inquiry about a contract, now I must end whatever I'm doing and go through all those steps to access AMIS. I'd prefer one system dedicated to AMIS with quick access.

I found many errors in AMIS and trying to correct them is a monstrous task. Wish we had direct access to AMIS SPO personnel to help.

DCASMA's should use AMIS to track contract closeouts and input info promptly. It would save hours trying to check on status of old contracts if we could just use (the) computer instead of repeated letters and phone calls.

95. Worst features: Wasted time in "down time" and waiting for system to be "up."

96. A problem I have with AMIS is in pulling reports from PMS. If the machine gets blocked or knocks you off line you can't tell it to start at a certain page. If it's a 100 page report and you were on page 60 when something happened you have to start all over again.

97. I do not access PMS AMIS in anyway.

98. Could be a more effective tool if the buyers would use it more.

-most of the delay reasons the buyers use do not fall under any of the established codes.

99. There should be a better system of communication and understanding of AMIS from what it does and why it does this and what the output is useful for.

Procurement Analyst Comments

100. As a contracting officer, I was never adequately trained to access the data base nor made aware of the available capability. In some directorates, access was restricted to clerical personnel which is totally unacceptable. Within my current directorate, buyers are inadequately trained on the completion of AMIS forms.

101. AMIS should be designed so that MSD information is readily captured by AFSC for their "instant reports."

102. Repetitious questions on PMS BUY PLANS and DD350 and 67X/67X forms. Again, same information is needed all the time for a new modification. Need to develop a system to stop all this duplication of work! "Keep it Simple."

103. This survey is not accurate -- it does not take into effect individual policies at various activities nor does it look at equipment/funds availability nor workload to indicate which methods (decentralized/centralized) are more

effective. It is evident that you are striving for a particular response -- surprise!

104. All on-line access to AMIS/PMS databases should be via local hard-wired terminals, with databases hosted on local computer systems, thus eliminating problems with communications (poor quality phone lines, slow baud rates, etc). Corporate databases should be updated overnight in batch mode via long-haul communications from local systems. Existing software must be replaced or made faster and more user-friendly. An ideal workstation would contain all software necessary for contracting functions (i.e. spreadsheets, word processing, etc) along with access to AMIS/PMS databases, and printing capabilities.

105. Without management experience and commitment, computerization of contracting will never work. Managers need to be committed.

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The Air Force Systems Command (AFSC) Acquisition Management Information System (AMIS) is continually being improved to better meet the needs of its users. The primary object of this research was to support the AFSC AMIS program office and the AFSC Contract Automation Working Group in determining the buying activity users' level of satisfaction and unmet needs. The survey results will provide AFSC additional information on what improvements to AMIS will provide the most utility to the users.

The study found that 36% of AFSC buying activity users are satisfied with AMIS. Forty-four percent (44%) indicated dissatisfaction. Users believe that more training is needed, that the system should be designed for the infrequent user, and that input redundancies should be reduced. Contracting officers and buyers believe that AMIS needs to provide more utility for their functions. Management needs analysis tools.

Many of the users' unmet needs will be provided by the Integrated Distributed System (IDS), a major AFSC AMIS development project. All improvements to AMIS must "fit" the information and automation needs of the user and must contribute to an improved procurement process.

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